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No. 84-

IN THE

Supreme Court of the United States

October Term, 1984

PUERTO RICO AQUEDUCT AND SEWER AUTHORITY,
Petitioner,

v.

PAUL N. HOWARD COMPANY AND
INSURANCE COMPANY OF NORTH AMERICA,
Respondents.

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIRST CIRCUIT

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QUESTIONS PRESENTED[1]

1. Is the Puerto Rico Aqueduct and Sewer Authority (PRASA)—a public corporation created by statute as a government instrumentality that performs an essential governmental function throughout the Commonwealth of Puerto Rico under governance by a Board of Directors controlled by appointees of the Commonwealth's Governor and with substantial financial support from the Commonwealth's treasury—an arm of the Commonwealth and therefore immune from suit in federal court under the Eleventh Amendment?

2. Did the private attorneys retained by PRASA for purposes of this case, who are not empowered by statute to consent to suit against the Commonwealth of Puerto Rico, waive PRASA's Eleventh Amendment immunity by defending on the merits in the district court and filing a compulsory counterclaim and a third-party claim?

3. Should the standard differing site condition clause used in federal construction contracts be interpreted to permit a contractor to recover additional costs caused by the contractor's miscalculations, where the conditions on which the contractor bases its claim are revealed in the contract documents and are not materially different than those ordinarily encountered at the site?[2]

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[1] All parties below are shown in the caption of this petition. Petitioner, as a public corporation and government instrumentality of the Commonwealth of Puerto Rico, has no subsidiaries, affiliates or parent corporation.

[2] Subsumed within the differing site condition issue is the question whether the courts below properly awarded attorney's fees against PRASA under Rule 44.4(e) of the Puerto Rico Rules of Civil Procedure. Those courts did so on the theory that PRASA's defenses in this action were so meritless that even to present them constituted the obstinacy that justifies an award of fees under Rule 44.4(e). If PRASA prevails on the differing site condition issue in this Court, the obstinacy finding and the award of attorney's fees cannot stand.

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PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIRST CIRCUIT

The Puerto Rico Aqueduct and Sewer Authority (hereinafter "PRASA") respectfully prays that a writ of certiorari issue to review the judgment and opinion of the United States Court of Appeals for the First Circuit entered in this proceeding on August 29, 1984.

OPINIONS BELOW

The opinion of the Court of Appeals, not yet reported, appears in the Appendix hereto at p. 1a, *infra*. The opinion of the District Court for the District of Puerto Rico, not reported, appears in the Appendix hereto at p. 1b, *infra*.

JURISDICTION

The judgment of the Court of Appeals was entered on August 29, 1984. A timely petition for rehearing was denied on October 11, 1984, and this petition for certiorari was filed

within 90 days of that date. This Court's jurisdiction is invoked under 28 U.S.C. § 1254(1).

CONSTITUTIONAL AND STATUTORY PROVISIONS INVOLVED

This case involves the Eleventh Amendment to the Constitution of the United States, which provides as follows:

> The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against any one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.

United States Constitution, Amendment XI.

STATEMENT OF THE CASE

This civil case arises out of a construction project, funded in part by federal money, that respondent Paul N. Howard Company (hereinafter "Howard") agreed as general contractor to construct for PRASA. Howard, plaintiff in the district court, invoked that court's jurisdiction on the basis of diversity of citizenship (28 U.S.C. § 1332). After trial without jury, the district court awarded Howard judgment in the amount of $3,965,575.73; denied PRASA's counterclaim and its third-party claim against Howard's surety, the Insurance Company of North America; and declared that Howard is entitled to recover an unspecified amount in attorney's fees. PRASA appealed to the United States Court of Appeals for the First Circuit, which affirmed.

PRASA is established by the legislature of Puerto Rico as the single public corporation and autonomous governmental instrumentality responsible for providing water and sewer service throughout the Commonwealth of Puerto Rico. 22 L.P.R.A. §142. PRASA's governing Board is controlled by appointees of the Governor of Puerto Rico and its duties of

providing water and sewer service are declared by statute to be "an essential governmental function." *Id.* Although PRASA is not empowered to pledge the credit or taxing power of the Commonwealth, and PRASA's bonds are not, without more, debts of the Commonwealth, 22 L.P.R.A. §144(g), PRASA receives substantial financial support from the Commonwealth in the form of tax exemptions, 22 L.P.R.A. §155(a), guarantees of notes and obligations, 1975 P.R. Laws 98, and subsidies appropriated by the legislature. For example, PRASA receives special appropriations from time to time such as Joint Resolution No. 19, approved May 27, 1981, wherein the legislature appropriated $11 million from "unencumbered funds in the Commonwealth treasury" for PRASA's regular sanitary sewer construction program ($8,075,108.00) and for reimbursement of interim financing from Farmers Home Administration for construction of rural aqueducts ($2,924,892.00). P.R.J.R. No. 19 (May 27, 1981). Similarly, PRASA receives appropriations for operating expenses on an annual basis, including $21,213,485.00 in the 1982 general budget, P.R.J.R. No. 20 (June 30, 1981), and $27,784,420.00 in the 1983 budget. P.R.J.R. No. 12 (August 30, 1982).

The project at issue in this case was for construction of Phase II of the Mayaguez intercepting sewer, which comprises 2,757.39 meters of 66-inch diameter concrete sewer pipe. Its construction required excavating a trench up to 40 feet deep, driving ten-inch diameter piles to support the pipeline, installing the concrete pipe, and backfilling the trench. The total cost of the contract was estimated to be $5,000,000.

For purposes of this petition, the critical events are a series of excavation failures Howard experienced at a location on the project called manhole 49, which is adjacent to the embankment of P.R. Highway No. 2. Although the contract required bidders to make a site investigation in order thoroughly to acquaint themselves with the work and conditions of the site (App. 166-167, 1911-1920),[3] Howard's site investigator spent

[3] References in the form "Exh. " are to the exhibits introduced at trial; those in the form "App. " are to the pages of the joint appendix prepared for and filed in the Court of Appeals; and those in the form "Tr. " are to the pages of the transcript of the trial.

only three to four hours examining the entire length of the project (App. 1141). He made no measurements (App. 1143); underestimated the height of the embankment of P.R. Highway No. 2 which runs parallel to the sewer pipeline at manhole 49 (App. 1143, 1315, 1714); and erroneously concluded that the pipeline at manhole 49 was to be installed 100 to 150 feet away from that embankment, not at its toe as was actually the case (App. 1144, 1714). He could not remember obtaining, prior to bidding, the subsoil report to which the plans refer bidders (Exh. 22, sheet 11; App. 1147-1149, 1849-1850) and was therefore unaware of the description in that report of the weak, compressible soil found at the site and, in particular, at manhole 49 (App. 515-518).

Howard was responsible for designing the sheet piling needed to keep the excavation from collapsing but attempted to commence excavation at the beginning of the project without installing any sheet piling. The excavation collapsed, delaying construction two weeks (Exh. 22, sheet 11; App. 1112, 1167-1169, 1569, 1871-1872, 1990, 2042, 2044-2045). Howard then drove sheet piling, but it buckled causing more delays (App. 1300-1301, 1569, 1872-1873, 1991, 2042, 2046, 2052-2053).

Shortly after Howard's excavation reached manhole 49, parallel to and at the toe of the embankment of P.R. Highway No. 2, the highway embankment settled, pushing Howard's sheet piling away from the embankment toward the west (App. 1293, 1515, 2069-2072). At the time of the embankment failure, Howard was supporting its excavation and the embankment with a sheet piling system originally designed by its consultant, Sidney Johnson, for use on a different portion of the project where the terrain was flat and the highway embankment not a factor (App. 1359, 1710-1711, 1766-1768, 1775, 2069-2072). On the afternoon of the failure, Howard submitted a letter to PRASA asserting that a differing site condition had been encountered, although the individual who decided to make that assertion later acknowledged that, at the time, he had no idea what had caused the failure (App. 1362-1363, 1516-1517, 1623-1624).

Howard asked its subsoil engineering consultants, Garcia and Johnson, to study the situation and make recommendations (App. 1291-1294, 1517-1519). Engineer Garcia concluded that the problem lay in the weakness of Howard's sheeting system and recommended that it be made stiffer and that longer sheet piling be used to resist the unbalanced forces exerted by the highway embankment (App. 1297-1298, 1302, 1318, 1322-1325, 1331-1337, 1348, 1365).

Howard rejected consultant Garcia's advice and decided, on the basis of consultant Johnson's recommendations, to proceed with a second attempt using essentially the same sheet piling system that had failed on the first attempt (App. 1352, 1790-1791, 2074). The highway settled again, shoving the sheet piling and pipeline away from the embankment toward the west (App. 1608, 1719, 2015, 2058). Following this second attempt, Howard abandoned all further construction in the area parallel to the highway embankment (manholes 49 to 53) (App. 1612) and quit the project over PRASA's protests (App. 1536, 1619-1620, 1931-1932, 1939, 2020-2023, 2028). Longo Construction, under a contract with PRASA, completed that portion of the work (App. 1939-1940, 2329).

The standard differing site condition clause used in the federal government's construction contracts was included in the contract between PRASA and Howard as a condition of federal funding. Howard contends that the wet, soft, compressible soil it encountered at manhole 49 constituted a differing site condition under that clause and excuses its failure successfully to accomplish construction in that area. The district court accepted this claim and awarded Howard $1,493,941.18 as compensation for additional costs incurred in attempting to complete construction in the area of manhole 49, declared that installation of the sewer in that area was impossible, and granted rescission of the contract for that part of the construction, thus excusing Howard's failure to complete the contract and barring PRASA's recovery on its counterclaim. The Court of Appeals affirmed.

The Court of Appeals also held that PRASA is not immune from suit in federal court under the Eleventh Amendment. The

opinion of the Court of Appeals states that "we doubt that PRASA is sufficiently an arm of the state to qualify for the protection of the Eleventh Amendment" but initially rested its rejection of PRASA's immunity on a holding that PRASA's failure to raise the Eleventh Amendment as a defense in the trial court constituted a waiver. *Infra,* pp. 10a-11a. In response to PRASA's petition for rehearing, the Court of Appeals broadened this ruling to include a holding that PRASA possesses no such immunity.[4] The court based this holding on its conclusion that, because PRASA "is financially independent of the Commonwealth," the judgment "rendered in this case will be paid out of PRASA's funds, rather than those of the Commonwealth." *Infra,* p. 10a. In relying on this single factor, the court ignored PRASA's role as the one instrumentality of the Commonwealth that performs an essential governmental function—providing water and sewage service—throughout the Commonwealth; the control exercised over PRASA by the Governor's appointees; and the considerable, financial support the Commonwealth renders to PRASA.

REASONS FOR GRANTING THE WRIT

This case presents important questions regarding the status under the Eleventh Amendment of public authorities like PRASA that perform governmental functions under the control of, and with support from, the state but maintain a limited measure of financial independence. This Court has not addressed directly the status of such entities and the decisions of the courts of appeal regarding that status are in conflict. The Court of Appeal's alternative holding—that PRASA waived its Eleventh Amendment immunity—is contrary to the applicable decisions of this Court and the well established principle that a state's consent to be sued must be unequivocally expressed.

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[4] This broadened holding is indicated by the court's statement that it was "convinced that PRASA enjoyed no Eleventh Amendment immunity" and its reliance on two decisions of the Supreme Court of Puerto Rico that discussed PRASA's relationship to the Commonwealth, not waiver. *Infra,* p. 1d. The cases are Canchani v. C.R.U.V., 105 D.P.R. 352 (1976) and A.A.A. v. Union Empleados A.A.A., 105 D.P.R. 437 (1976). As explained below, the Court's reliance is misplaced, for these cases shed no helpful light on the Eleventh Amendment question. *Infra,* p. 11, n. 9.

The decision of the Court of Appeals also misinterprets the standard federal contract clause governing differing site conditions in a fashion that conflicts with the interpretation given that clause by the Court of Appeals for the Federal Circuit (formerly the Court of Claims). If permitted to stand, that misinterpretation will so lower the standards required of contractors under that clause as to permit such contractors to impose on the government large cost overruns that are caused by the contractor's own fault and miscalculation.

I. THE DECISION BELOW THAT PRASA ENJOYS NO ELEVENTH AMENDMENT IMMUNITY CONFLICTS IN PRINCIPLE WITH THE DECISIONS OF OTHER COURTS OF APPEAL AND THREATENS IMPORTANT FUNDAMENTALS OF FEDERALISM EMBODIED IN THE ELEVENTH AMENDMENT

In holding that PRASA is not an arm of the Commonwealth of Puerto Rico entitled to partake of the Commonwealth's Eleventh Amendment immunity, the Court of Appeals focused narrowly on a single factor: because PRASA's finances are, at least in form, separate from those of the Commonwealth, the judgment in this case will not be paid directly from the Commonwealth's treasury.[5] The court ignored PRASA's essential nature as an instrumentality of the Commonwealth that performs essential governmental functions on an island-wide basis under control by and with assistance from the Commonwealth government. 22 L.P.R.A. § 142; *supra*, p. 3. This holding merits this Court's review because it conflicts in principle with other decisions by the courts of appeal and threatens to undermine "the vital role of the doctrine of sovereign immunity [as recognized by the Eleventh Amendment] in our federal system." *Pennhurst State School and Hospital v. Halderman,* 79 L.Ed.2d 67, 78 (January 23, 1984).

The Eleventh Amendment—the first amendment added to the Constitution after the Bill of Rights—resulted from general outrage that arose concerning what was viewed as an in-

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[5] There is no dispute that, as a sovereign entity, the Commonwealth of Puerto Rico is entitled to the same immunity from suit in federal court as are the several states. *Infra,* p. 10a; Ezratty v. Commonwealth of Puerto Rico, 648 F.2d 770, 776 n.7 (1st Cir. 1981).

fringement of state sovereignty countenanced in *Chisholm v. Georgia,* 2 Dall. 419 (1793), where a citizen of South Carolina was permitted to sue the State of Georgia in federal court. See *Monaco v. Mississippi,* 292 U.S. 313, 325 (1934). Very recently, this Court affirmed the importance of the Eleventh Amendment in preserving state sovereignty and has emphasized that

> The Eleventh Amendment's restriction on the federal judicial power is based in large part on "the problems of federalism inherent in making one sovereign appear against its will in the courts of the other." *Employees v. Missouri Public Health Department,* 411 U.S. 279, 294 (1973) (Marshall, J., concurring in the result).

Pennhurst State School and Hospital v. Halderman, 79 L.Ed.2d at 89. At the root of those "problems of federalism" is the destruction of the sovereignty of the states that would occur if they were compelled to subject their policy decisions and public administration to the dictates of the federal courts in suits brought by private parties:

> The very object and purpose of the Eleventh Amendment are to prevent the indignity of subjecting a State to the coercive process of judicial tribunals at the instance of private parties. It was thought to be neither becoming nor convenient that the several States of the Union, invested with that large residium of sovereignty which had not been delegated to the United States, should be summoned as defendants to answer the complaints of private persons, whether citizens of other States or aliens, or *that the course of their public policy and the administration of their public affairs should be subjected to and controlled by the mandates of judicial tribunals without their consent, and in favor of individual interests.*

Ex Parte Ayers, 123 U.S. 443, 504-06 (1887) (emphasis supplied). To achieve this protection for state sovereignty, the amendment must be broadly and liberally interpreted:

> To secure the manifest purposes of the constitutional exemption guaranteed by the 11th Amendment re-

> quires that it should be interpreted, not literally and too narrowly, but fairly, and with such breadth and largeness as effectually to accomplish the substance of its purpose.

123 U.S. at 505.

Avoiding those "problems of federalism" and protecting the states' public policy and administration from control by the federal courts has required a recognition that a suit may be in fact against the state and therefore barred by the Eleventh Amendment even though only state officers or agencies are named as defendants. *See, e.g., Ex Parte Ayers,* 123 U.S. at 487-92; *Louisiana v. Jumel,* 107 U.S. 711, 720-23 (1882). When a state agency or officer acts within its authority and under state control in carrying out essential governmental functions, the state's policy and administration will be subject to review if the officer or agency is sued in federal court. In applying these principles, this Court has considered the status of certain public entities and has held that executive departments of state government are arms of the state enjoying Eleventh Amendment protection (*see, e.g., Department of Health v. Florida Nursing Home Association,* 450 U.S. 147, 150 (1981)); but that political subdivisions within states, such as counties, municipalities and local school boards, do not enjoy such immunity. *Mt. Healthy City Board of Education v. Doyle,* 429 U.S. 274, 280-281 (1977). This Court has not, however, addressed the Eleventh Amendment status of state authorities such as PRASA that have a corporate existence distinct from that of the state but are created by state law to perform governmental functions in accordance with state policy and with financial assistance from the state.[6]

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[6] In Lake Country Estates v. Tahoe Planning Agency, 440 U.S. 391 (1979), this Court considered the status of a bi-state agency created pursuant to interstate compact and held that it was not entitled to Eleventh Amendment immunity. This decision provides no guidance as to the status of state authorities such as PRASA because it turned on this Court's conclusion that the bi-state agency was, in essence, a political subdivision of the two compacting states. It was so described in the Compact, its funding was provided by counties, not the states, and a majority of its governing board was appointed by counties and cities, not the states. 440 U.S. at 401-02.

In the absence of guidance from this Court, a conflict has developed among the Courts of Appeal. One line of cases looks broadly to the functions performed by state authorities, the extent of state control, the existence of state financial support and the role of those authorities in carrying out state policy. These cases properly give the Eleventh Amendment the generous interpretation necessary to protect state policy and administration from control by the federal courts. For example, in *Fouche v. Jekyll Island State Park Authority,* 713 F.2d 1518, 1520-1522 (11th Cir. 1983), the Eleventh Circuit held a state park authority to be immune under the Eleventh Amendment even though, like PRASA, it was created as a public corporation and state instrumentality, was self-supporting and financially separate from the state, and was authorized to issue revenue bonds but prohibited from pledging the state's credit in support of those bonds. In so holding, the court emphasized that the state controlled the park authority by virtue of the Governor's power to appoint its board of directors and that the authority is declared by statute to be performing an essential governmental function.

Similarly, in *Tuveson v. Florida Governor's Council on Indian Affairs, Inc.,* 734 F.2d 730, 732-34 (11th Cir. June 18, 1984), the court held that a council created by Executive Order and incorporated as a corporation not for profit enjoyed Eleventh Amendment immunity because of the state functions it performed and the extent of state control over it. [7] Even the First Circuit, the court that decided the instant case, followed this approach in an earlier case, *Perez v. Rodriguez Bou,* 575 F.2d 21, 25 (1st Cir. 1978). That court held the University of Puerto Rico to be an arm of the Commonwealth enjoying Eleventh Amendment immunity from suit in federal court because of the "extent and nature of the Commonwealth of Puerto Rico's financial support for the University of Puerto Rico and the fact that the Commonwealth appoints the governing body of the University . . . " 575 F.2d at 25. The court so held even though the structure of the University and its relation

[7] To be sure, the *Tuveson* decision considers the question whether recovery will be from funds in the state treasury but only as one factor among several and, indeed, not a particularly important one. 734 F.2d at 732.

to the Commonwealth are uncannily similar to PRASA's, as detailed in the margin.[8] As these cases implicitly recognize, when a creation of the sovereign that performs essential governmental functions under the sovereign's control is summoned into federal court, the summons runs, in effect, to the sovereign also and the sovereign's policies and administration are laid before the court for review and judgment.

The decision below denying PRASA's immunity ignores this reality and conflicts with the principles established by the Eleventh Circuit in *Fouche* and *Tuveson* and with the First Circuit's own earlier decision in *Rodriguez Bou.* That court ignored the factors considered in those cases—the essential governmental functions PRASA performs (22 L.P.R.A. § 142), the financial support the Commonwealth provides PRASA (*supra,* p. 3) and the control the Governor's appointees have over PRASA's operations (22 L.P.R.A. § 142)—and instead focused narrowly on its conclusions that "PRASA is financially independent of the Commonwealth" and that "the judgment rendered in this case will be paid out of PRASA's funds." *Infra,* p. 10a. In doing so, the Court of Appeals made no mention of its own decision in *Rodriguez Bou,* to which PRASA's brief on appeal had directed that court's attention, and relied instead on *Miller-Davis Co. v. Illinois State Toll Highway Authority,* 567 F.2d 323, 327-330 (7th Cir. 1977), another case denying Eleventh Amendment immunity of a state authority on the basis of a narrow focus on whether recovery would come from the state's treasury.[9]

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[8] Both the University and PRASA are governed by a board or council controlled by appointees of the Governor (18 L.P.R.A. § 602, 22 L.P.R.A. § 142); both perform an essential governmental function (22 L.P.R.A. § 142); both have authority to issue revenue bonds but are prohibited from pledging the credit or taxing power of the Commonwealth (18 L.P.R.A. § 822, 22 L.P.R.A. § 144(g)); both are authorized to sue and be sued without, however, specifying in what courts (18 L.P.R.A. § 602(f)(1), 22 L.P.R.A. § 144(c)); and both receive significant financial support from the Commonwealth.

[9] The two decisions of the Supreme Court of Puerto Rico on which the court below relied do not deal with the Eleventh Amendment and shed no useful light on PRASA's status under that amendment. In A.A.A. v. Union Empleados A.A.A., 105 D.P.R. 437 (1976), the court decided only PRASA's

(footnote continues)

This exclusive focus on the fact that the judgment in the instant case will come, in the first instance, from PRASA's funds and not the Commonwealth's treasury is for two reasons an improper basis on which to decide PRASA's Eleventh Amendment status. First, although PRASA's funds are held apart from the Commonwealth's treasury, they are public funds of the Commonwealth in the sense that they are devoted exclusively to carrying out PRASA's essential governmental functions under the control of the Commonwealth government. 22 L.P.R.A. § 142. Second, as evidenced by the financial support PRASA already receives from the Commonwealth to fund its current program, *supra,* p. 3, depletion of PRASA's resources by several million dollars through payment of the judgment in this case is likely to result in the Commonwealth's having to increase its financial contributions to PRASA in the future in order to maintain current operations. Thus, the judgment in this case is likely to have a significant effect, albeit indirect, on the Commonwealth's treasury.

PRASA's relationship to the Commonwealth of Puerto Rico well illustrates the folly of determining a state authority's Eleventh Amendment status solely on the basis of whether a judgment will be paid out of the state's treasury. Given that PRASA is a Commonwealth-wide entity created by law to carry out essential governmental functions under the ultimate control of, and with financial support from, the Commonwealth's government, it denies reality to suggest that PRASA is not an arm of the Commonwealth. When PRASA is summoned, so too is the Commonwealth. Requiring PRASA to respond to suits by private entities in federal court creates all of the "problems of federalism inherent in making one sovereign appear against its will in the courts of the other" that were condemned by Justice Marshall in *Employees v. Missouri Public*

(footnote continued)

status under Section 17 of Art. II of the Constitution of Puerto Rico and turns on detailed consideration of the legislative history of that provision. Accordingly, it is not helpful in determining PRASA's status under the broader and very different principles embodied in the Eleventh Amendment to the United States Constitution. In Canchani v. C.R.U.V., 105 D.P.R. 352 (1976), the court merely quotes a portion of PRASA's enabling legislation in a footnote.

Health Department, 411 U.S. at 294 (Marshall, J., concurring) and this Court in *Pennhurst State School and Hospital v. Halderman,* 79 L.Ed.2d at 89. PRASA carries out the Commonwealth's public policy and participates in its public administration, the very functions that this Court in *Ex Parte Ayers,* 123 U.S. at 505, declared the Eleventh Amendment is designed to protect from control and review in federal court. To allow such an entity to be sued by private parties in federal court would, in the words of Justice Powell, "emasculate the Eleventh Amendment." *Pennhurst,* 79 L.Ed.2d at 82. If such were allowed, instruments of the sovereign states carrying out state policies and engaged in essential governmental functions would routinely be required to answer private complaints in federal court simply because they have sufficient financial independence from the state that the judgments against them will not in the first instance come directly from the state treasury.

Finally, it must be remembered that holding PRASA to be an arm of the Commonwealth entitled to Eleventh Amendment immunity will not deprive plaintiffs such as Howard of a forum to assert their claims. PRASA is amenable to suit in the Commonwealth's courts. Requiring that suits against PRASA be brought in those courts has the additional benefit that the judges of those courts are particularly familiar not only with the conditions in Puerto Rico that form the context for many claims against PRASA but also with the principles of the law of Puerto Rico that govern those claims. This familiarity with local law is particularly important in the case of Puerto Rico because the Commonwealth is a civil code jurisdiction with many important principles of law that are not familiar to judges trained in the common law. Thus, the Commonwealth's courts afford a viable and in some ways preferable forum for cases such as this one.

In order not only to dispel the conflict and confusion that has arisen regarding the Eleventh Amendment treatment of entities like PRASA but also to make clear that such entities, as instruments of state policy and administration, are entitled to immunity under the Eleventh Amendment, this Court should grant the writ of certiorari to review the decision below.

II. THE COURT OF APPEAL'S HOLDING THAT PRASA WAIVED ITS ELEVENTH AMENDMENT IMMUNITY IS CONTRARY TO THE CONTROLLING DECISIONS OF THIS COURT

The Court of Appeals held that PRASA waived its Eleventh Amendment immunity by defending on the merits in the district court and filing a compulsory counterclaim and a third-party claim against the surety on Howard's performance bond. This aspect of the decision below is contrary to this Court's decision in *Ford Motor Co. v. Treasury Department,* 323 U.S. 459 (1945).

Because the Eleventh Amendment imposes a jurisdictional limitation on the federal courts, that limitation is not waived merely by a failure to assert it in the trial court and may be raised for the first time at any stage in a proceeding, even in this Court:

> The limitation [imposed by the Eleventh Amendment] deprives federal courts of any jurisdiction to entertain such claims [against states], and thus may be raised at any point in a proceeding. "The Eleventh Amendment declares a policy and sets forth an explicit limitation on federal judicial power of such compelling force that this Court will consider the issue arising under this Amendment ... even though urged for the first time in this Court." *Ford Motor Co. v. Department of Treasury,* 323 U.S. 459, 467 (1945).

Pennhurst State School and Hospital v. Halderman, 79 L.Ed.2d at 77 n.8. A state may, however, consent to suit in federal court (*see, e.g., Clark v. Barnard,* 108 U.S. 436, 447 (1883)); but this Court has insisted "that the state's consent be unequivocally expressed." *Pennhurst State School and Hospital v. Halderman,* 79 L.Ed.2d at 77. *Accord, Department of Health v. Florida Nursing Home Association,* 450 U.S. at 150; *Edelman v. Jordan,* 440 U.S. 651, 673 (1974) ("We will find waiver only where stated by the most express language or by such overwhelming

implication from the text as will leave no room for any other reasonable construction").[10]

Under these principles, appearing in the district court and defending on the merits without raising Eleventh Amendment immunity will be a waiver of such immunity only where the attorneys representing the state are shown to have authority under state law to consent to suit against the state. *Ford Motor Co. v. Treasury Department*, 323 U.S. at 467-68. *Accord, Sosna v. Iowa*, 419 U.S. 393, 396 n.2 (1975). In *Ford*, the Attorney General of Indiana first made the Eleventh Amendment defense in this Court, after having appeared for the state and defended on the merits in both the district and circuit courts without raising that immunity. This Court held that the Attorney General's actions did not constitute consent to suit against the state in federal court because, under Indiana law, he was not authorized to give such consent. 323 U.S. at 468. In so holding, this Court emphasized that

> It is not to be presumed in the absence of clear language to the contrary, that they [the state legislature] conferred on administrative or executive officers discretionary power to grant or withhold consent in individual cases.

323 U.S. at 468.

In the instant case, it is not necessary to resolve whether the law of Puerto Rico authorizes the Attorney General of the Commonwealth (now the Secretary of Justice) to waive the Commonwealth's immunity in individual cases,[11] for PRASA

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[10] The statute creating PRASA authorizes it "to sue and be sued" without, however, specifying in what courts. 22 L.P.R.A. § 144(c). Such a general waiver of sovereign immunity does not constitute a waiver by the state of its constitutional immunity under the Eleventh Amendment from suit in federal court. Department of Health v. Florida Nursing Home Association, 450 U.S. at 150.

[11] Compare, for example, Porto Rico v. Ramos, 232 U.S. 627, 631-32 (1914) (holding, prior to adoption of Puerto Rico's present Constitution, that the Commonwealth's Attorney General had such authority) with Alcoa Steamship Company v. Perez, 424 F.2d 433, 436 (1st Cir. 1970) (in which it

(footnote continues)

was represented, not by the Attorney General, but by private attorneys (other than counsel here) retained for the purposes of this litigation. There has been no showing that such a private attorney retained by an agency is authorized to waive the Commonwealth's Eleventh Amendment immunity and the Court of Appeals made no such finding. Thus, there can have been no consent to this suit in federal court and no waiver of Eleventh Amendment immunity because the attorneys who represented PRASA in the district court had no authority to grant such consent or make such a waiver. The finding of waiver by the court below plainly conflicts with this Court's decision in *Ford Motor Co. v. Treasury Department,* 323 U.S. at 468.

This conclusion is not altered by the fact that the private attorneys representing PRASA in the district court asserted a counterclaim and a third-party claim on PRASA's behalf. First, as those attorneys had no authority to waive the Eleventh Amendment immunity, no action they took could have done so. Second, the counterclaim arose from the same transactions and occurrences that were the subject of Howard's claims and, accordingly, was compulsory under Rule 13(a), Fed.R.Civ.P. The third-party claim only brought the surety on Howard's performance bond into the case to guarantee recovery should PRASA prevail on the counterclaim. Accordingly, the filing of the third-party and counterclaims was an essential ingredient of an effective defense to the litigation and did not represent an expansion of its scope beyond that described by Howard's initial claims against PRASA. In these circumstances, filing those claims is no more a consent to suit than was the defense on the merits. *Cf., Missouri v. Fiske,* 290 U.S. 18, 24-25 (1933) (holding that a limited intervention by the state did not waive Eleventh Amendment immunity).

(footnote continued)

is observed that officials of the Commonwealth's Department of Justice have no authority by their representations in court to vary or expand the Commonwealth's statutory liability). In *Alcoa Steamship,* the court went on to hold that, in the circumstances there presented, the Commonwealth by its actions was estopped from refusing to refund taxes received during the pendency of litigation challenging the validity of their imposition. 424 F.2d at 437.

III. THE DECISION BELOW INVITES CONTRACTORS TO IMPOSE UNJUSTIFIED COST OVERRUNS ON THE GOVERNMENT

Howard's differing site condition claim presents important issues of federal contract law. The contract clause under which that claim arose was included in the contract between PRASA and Howard as a requirement for partial federal funding of the project, and is identical to the standard differing site condition clause included in construction contracts let by the United States. In affirming the district court's acceptance of the differing site claim, the Court of Appeals abandoned the stringent requirements that the Court of Appeals for the Federal Circuit (formerly the Court of Claims) has established for such claims and substituted an approach under which contractors are virtually invited to invoke the clause whenever they want the government to pick up the tab for the contractors' mistakes, miscalculations and inefficiencies.

For an illustration of the consequences that this approach to differing site conditions will have on the administration of public contracts and the budgets of the agencies responsible for such contracts, one need look no further than the instant case. Howard's contract for construction of Phase II of the Mayaguez intercepting trunk sewer was for approximately $5 million. If the judgment below stands, PRASA will wind up paying over $9 million for completion of that sewer, nearly double the initial project cost: over $3,275,000.00 to Howard under the contract that Howard failed to complete, almost $1,850,000.00 to Longo Construction to complete that contract, and almost $4 million to Howard as damages on the differing site condition and other claims. At a time when public resources are sorely strained on all sides, a decision by a Court of Appeals that diverges so decisively from accepted principles of government contract law in a fashion that invites higher costs in public works merits this Court's review.

1. *The Court of Appeals ignored the essential elements that comprise a differing site condition claim.* The standard federal clause incorporated into PRASA's contract with Howard defines a "Type (2)" differing site condition as requiring

> [U]nknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in the work of the character provided for in this contract.

(App. 182). The required proof of a claim under this clause necessarily encompasses three elements:

> [1] What were the recognized and usual physical conditions at the site of the work? [2] What physical conditions were actually encountered? [3] Did they differ [materially] from the known and the usual?

Charles T. Parker Construction Company v. United States, 433 F.2d 771, 778 (Ct. Cl. 1970). *Accord, Southwest Engineering Company, Inc. v. United States,* 21 CCF (CCH) ¶ 83,909 (Ct. Cl. 1975); *Wm. A. Smith Contracting Company v. United States,* 412 F.2d 1325, 1338-41 (Ct. Cl. 1969).

The decision below of the Court of Appeals conflicts with these decisions because that court affirmed Howard's claim that a differing site condition existed at manhole 49 despite the district court's failure to find that any of the required elements had been established. *Infra,* pp. 5a and 19b. Nowhere did either the Court of Appeals or the district court identify "what were the recognized and usual soil conditions at the site"; what "physical conditions were actually encountered"; or how they differed materially from the "known and the usual." *Id.*

Had the courts below evaluated the evidence under the legal standards established by the Federal Circuit, they would have had to reject Howard's claim. Howard's own consultants and witnesses conceded that the wet, organic, compressible soils found around manhole 49 are precisely the types of soils for which the area of the project is known. Testimony of Engineer Jimenez (App. 1846-47, 1859); testimony of Engineer Garcia (App. 1313, 1359-60). Engineer Capacete, testifying as an expert for PRASA, agreed (App. 2275-2283, 2289-91).

2. *From the information available in the contract documents and site investigation, Howard should reasonably have*

anticipated the conditions at manhole 49. The Federal Circuit has established that, even where a soil condition is unusual, it does not create a differing site condition if the contractor should have been able to anticipate its existence from the contract documents and the site inspection:

> To qualify as a changed condition, the condition at the site must be one that reasonably could not have been anticipated by the contractor from its study of the contract documents, inspection of the site, and his general experience, if any, in the area.

Southwest Engineering Company, Inc. v. United States, 21 CCF (CCH) ¶ 83,909. *Accord, Wm. A. Smith Contracting Co. v. United States,* 412 F.2d at 1338. The contractor is charged with what he should reasonably deduce from study of these sources and has a duty to inquire further if the information is confusing or inadequate. *Southwest Engineering,* 21 CCF (CCH) ¶ 83,909.

The decision below conflicts with these principles because both the contract documents and the site investigation revealed the precise nature of the soft, wet subsoil conditions Howard encountered at manhole 49. The subsoil report describes "highly critical (compressible and soft) subsoil conditions encountered along most of the pipeline route" and emphasizes that the water level was above ground level at manhole 49 (App. 517, 523). The report recommended "the use of well braced sheet piled walls to . . . retain the earth material within the excavations" (App. 523). The construction plans contained detailed subsoil borings showing very weak, wet soil at manhole 49 (Exh. 22, sheets 13-14; App. 525-527, 1825). At trial, even Howard's own witness Jimenez conceded that the contract information should have alerted Howard to the soft, compressible soil conditions it encountered at manhole 49 (Tr. 1243, App. 1858).

An adequate site investigation would have given Howard additional insight into the conditions at manhole 49. The surface at that area was, according to Howard's consultant Johnson, "a low lying swampy ground" (App. 714); and the

12-foot high embankment of P.R. Highway No. 2 was plainly visible immediately adjacent to the planned excavation for the sewer line (App. 1714).

From all this information, Howard should have realized that construction of the pipeline at manhole 49 required it to excavate a large trench in wet, very soft, compressible soil immediately at the toe of the 12-foot high embankment of P.R. Highway No. 2. Howard should have been readily able to predict that the embankment resting on such wet, soft soil would have a tendency to slide and that special precautions would have to be taken to hold it in place. As the Claims Court has observed,

> One does not have to be professionally trained in the science of soil mechanics to know that most soils, when exposed to atmospheric, surface, or subsurface water, at this type of location will become relatively unstable and uncompactible, in short, mud. It was not necessary that the Forest Service after setting forth all the other indications of wet conditions which it provided in the contract documents, go on to state the obvious conlusion to be drawn from those indications, namely, that wet conditions would be encountered.

Portable Rock Product Co. v. United States, 4 Cl. Ct. 495, 503 (1984). Similarly, Howard was on ample notice of conditions it encountered at manhole 49 and should have known to take appropriate precautions.

3. *Howard's own miscalculations and improper techniques bar its differing site condition claim.* In *Perini Corporation v. United States,* 381 F.2d 403 (Ct. Cl. 1967), the court rejected a differing site condition claim,

> because it has never been the purpose of that article in the contract to protect a party from the results of its own miscalculations. We have so held in many cases involving claims by disappointed contractors.

381 F.2d at 415. When the contractor is responsible for selecting the construction method or designing part of the

project, he is responsible for the success or failure of his method or design so long as the "physical composition of the material encountered" is not materially different from that ordinarily encountered or described in the contract. *Norfolk Dredging Company v. United States,* 360 F.2d 619 (Ct. Cl.), *cert. denied,* 385 U.S. 919 (1966).

The decision below conflicts with the principles enunciated in these cases because the problem at manhole 49 was of Howard's own making. Howard was responsible for design of the sheet piling (Exh. 22, sheet 11; App. 1112, 1167-1169) and was fully appraised of the soil conditions. Nevertheless, through a series of miscalculations, plaintiff failed to provide adequate sheeting to support its excavation in the area of manhole 49, causing the difficulties that led it to abandon the project.

These miscalculations began at the pre-bid phase when Howard's site investigator made a wholly inadequate inspection and incorrectly estimated the location and height of the highway embankment at manhole 49 (App. 1141-1144, 714). They continued at the outset of the project when the excavation collapsed because Howard tried to begin it without using any sheet piling to support the walls (App. 1569, 1871-1872, 1990, 2041). When Howard reached manhole 49, where the excavation is parallel to and at the toe of the highway embankment, Howard's casual approach to sheet piling brought construction to a halt. Howard used a weakened version of Johnson's sheet piling system even though the consultant had designed that system for flat terrain and not authorized its use adjacent to the embankment. The result was that the excavation collapsed.

Howard's subsoil consultant Garcia concluded that the collapse was due to inadequacy of the sheet piling system and warned that attempting to continue the excavation with the same system would risk both "the stability of the highway again and possibly the safety of the men working nearby" (App. 507, 1315-1325, 1337-1339, 1346-1347). Despite Garcia's warnings, Howard made a second attempt to excavate at manhole 49 using essentially the same sheet piling system it had used on the

first attempt (App. 1552, 1790-1792, 2074). The result was another series of settlements of the highway, displacements of the pipeline and Howard's decision to abandon the job (App. 1608-1610, 1719, 1947-1949, 2058, 2137-2138). Despite this story of miscalculation, error, and, in the circumstances, extraordinary refusal to modify a faulty design, the Court of Appeals permitted Howard to relieve itself of the consequences of its own errors and miscalculations by invoking the differing site condition clause.

Thus, the decision of the Court of Appeals is squarely in conflict in at least three respects with the decisions of the Court of Appeals for the Federal Circuit interpreting the differing site condition clause. To resolve that conflict and to protect the public fisc from contactors' claims for costs resulting from their own mistakes and miscalculations, this Court should grant the writ of certiorari to review the decision below.

CONCLUSION

For these reasons, a writ of certiorari should be issued to review the judgment and opinion of the United States Court of Appeals for the First Circuit.

Respectfully submitted,

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November 29, 1984

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APPENDIX A

IN THE

United States Court of Appeals

FOR THE FIRST CIRCUIT

No. 83-1824

PAUL N. HOWARD COMPANY,
Plaintiff, Appellee,

v.

PUERTO RICO AQUEDUCT AND SEWER AUTHORITY,
Defendant, Appellant,

v.

INSURANCE COMPANY OF NORTH AMERICA,
Third-Party Defendant, Appellee.

Appeal from the United States District Court
For the District of Puerto Rico
[Hon. Raymond L. Acosta, *U.S. District Judge*]

Before

COFFIN, BOWNES AND BREYER,
Circuit Judges.

Paul A. Lenzini, with whom *Luis Guinot, Jr., William A. Hutchins, Hernando A. Rivera,* and *Chapman, Duff and Paul* were on brief, for appellant.

Steven C. Lausell, with whom *Jimenez & Fuste* was on brief, for appellees.

August 29, 1984

COFFIN, *Circuit Judge.* This dispute arises out of an unsuccessful attempt to lay a 66-inch diameter concrete sewer pipe along a route almost two miles long in Mayaguez, Puerto Rico. The plaintiff, Paul N. Howard Company ("Howard"), was hired by the defendant, the Puerto Rico Aqueduct and Sewer Authority ("PRASA"), to construct the pipeline. Howard claims that due to an unexpected site condition it was impossible to build the sewer in compliance with contract specifications. Howard brought this suit seeking partial rescission of the contract and compenstion for extra costs incurred as a result of design changes ordered by PRASA after construction began.

The district court for the District of Puerto Rico entered a judgment in favor of Howard in the amount of about $4 million. The district court also awarded Howard attorney's fees "in view of the temerity and obstinacy displayed by [the] defendant".

PRASA appeals, arguing that the district court erred in holding that the terrain at the foot of the embankment of P.R. Highway No. 2 constituted a differing site condition and in holding that it was impossible to lay the sewer along the straight line specified in the contract. PRASA also challenges the district court's award of costs incurred by Howard as a result of PRASA's decision to increase the required load capacity of the sewer's supporting piles and argues that the district court abused its authority in awarding attorney's fees. Finally, PRASA argues that as an instrumentality of the government of Puerto Rico it is immune from a suit for damages in federal court under the Eleventh Amendment. We reject each of these claims and affirm the judgment of the district court.

DIFFERING SITE CONDITION

The original contract called for Howard to lay the sewer line parallel to P.R. Highway No. 2 for a distance of over 500 meters. Howard was expected to dig a ditch about forty feet deep at the toe of the highway embankment, drive piles to

support the pipeline, place the pipeline on top of the piles at the bottom of the ditch, and then backfill the ditch with earth, burying the pipeline. It was Howard's obligation under the contract to design and use a sheet piling system which would support the wall of the excavation during construction. Howard did design and use such a system, but shortly after Howard began excavation at the toe of the highway embankment it settled, pushing the sheet piling system into the excavation and causing the highway itself to settle. Howard then backfilled the trench to prevent further damage to the highway, and notified PRASA that it had encountered a "differing site condition" [1], requiring modification of the contract terms. PRASA ordered Howard to further backfill the excavation to an elevation higher than the surrounding ground level, but disputed Howard's claim that the tendency of the highway embankment to slide constituted a differing site condition.

Both parties retained soil experts to investigate the cause of the settlement of the highway embankment. In their discussions PRASA insisted that the settlement was caused by Howard's use of an inadequate sheet piling system, while Howard argued that given the structure of the highway embankment and the nature of the soil conditions at the site, it would be impossible to lay the pipeline as planned without causing some settlement of the highway and displacement of the pipeline.

After an impasse of more than four months, PRASA and Howard agreed that Howard would make another attempt to lay the pipeline along the highway. This time Howard limited its excavation, removing only enough earth to allow it to install one section of pipe at a time. Howard's soil consultant was at the site and directed a significant portion of this second excavation. Between February 18, 1980 and March 3, 1980, Howard installed nine sections of pipe without experiencing any lateral displacement. Highway settlement was limited to a

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[1] The contract between Howard and PRASA incorporated the standard definition of differing site conditions defining them, in part, as "unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract".

maximum of 4⅛″ during that period. But after the sheet piling was removed, as required by the contract, the highway settled 15″ and the pipeline was displaced laterally. At the time the parties believed that the pipeline was 14″ off center. More recent measurements indicate that the lateral displacement did not exceed 7″.

PRASA did not consider this deviation from the design specifications acceptable and refused to approve or pay for Howard's work in this area of the project. Howard abandoned the construction site in December, 1980 after having spent more than five months in an unsuccessful attempt to obtain a change order from PRASA. This lawsuit followed.

The district court held in Howard's favor, concluding that it was not possible for Howard to construct the pipeline along the route designated by PRASA in the manner specified in the contract without causing settlement of the highway embankment and displacement of the pipeline. The district court found that the instability of the highway embankment constituted a differing site condition justifying rescission of that part of the contract that required Howard to lay the pipeline along the highway embankment and rejected PRASA's contention that it was the design of Howard's sheet piling system that it was responsible for Howard's difficulties. In coming to this conclusion, the district court relied on expert testimony that the tendency of the highway embankment to slide was unusual and unpredictable, and that only by changing the course of the pipeline or leaving the sheet piling in place could lateral displacement of the pipeline be prevented. The court also relied on testimony describing the difficulties another construction company encountered when it attempted to lay this section of the pipeline several years after Howard had abandoned its attempt.

On appeal PRASA attacks the district court's conclusion that the conditions encountered by Howard were unusual and unpredictable and that construction of the pipeline according to the design plans was impossible. After reviewing the record, we reject PARSA's contentions. It is not our task to reweigh the evidence presented to the district court. We may alter that court's judgment only if it applied an erroneous legal standard.

or committed a clear error in its findings of fact. We have not been referred to, nor have we found, any evidence indicating that the district court made either of these errors.

As noted by the trial judge in his findings of fact, there was expert testimony to the effect that the instability of the highway embankment was unusual and unexpected:

> "It is my opinion that the designers of this project did not anticipate the events which we have observed. And I do not mean that to be critical because I do not think they should be severely faulted for that. The condition which we find is not common. I do not think that the contractor anticipated the occurrences which we observed. I do not think that the soil consultant anticipated the conditions which we observed. In short, I don't [think] anybody anticipated what we have observed.
>
> "[I]n October of 1979, we all suddenly learned a lesson." Testimony of Sydney M. Johnson, VI Joint Appendix 1736-37.

Given this and other testimony describing the uncommon instability of the highway embankment, we believe that the requisite elements of a differing site claim were established. *See William A. Smith Contracting Company v. United States,* 412 F.2d 1325, 1338 (Ct. Cl. 1969) ("[A] changed condition is encountered when the condition could not have been reasonably anticipated from an examination of the site or from a study of the contract drawings and specifications.").

We must also reject PRASA's claim that it was Howard's sheet piling system, rather than the nature of the embankment, that caused the construction difficulties. Although there was testimony indicating that different sheet piling systems might have prevented the highway from settling and the pipeline from shifting, other experts indicated that these other systems would have been impractical or ineffective and that only changing the route of the pipeline or leaving the sheet piling in place could ensure the success of the project. Under these circumstances we have no hesitation in affirming the district court's conclusion

that Howard's sheet piling system was not the cause of the settling and shifting.

Finally, we reject PRASA's contention that the district court improperly based its finding of impossibility on an "insignificant defect"—the 7″ lateral deviation in the pipeline. Inasmuch as PRASA refused to accept the pipeline with that deviation, and inasmuch as PRASA ordered Howard not to proceed unless it could prevent the embankment from sliding, we think the district court was justified in concluding that it was impossible to lay the pipeline within the tolerances deemed acceptable by PRASA.

Accordingly, we find no error in the district court's award of costs incurred by Howard as a result of the differing site condition encountered.

CHANGE IN PILE CAPACITY

The second group of claims raised in this appeal challenge the district court's award to Howard of the extra costs it incurred as a result of PRASA's instruction that some of the piles used to support the pipeline be a higher "ultimate capacity" [2] than was required by the original contract. PRASA argues that Howard should not have been allowed to recover its increased costs because there was a patent ambiguity in the contract documents that should have put Howard on notice that an ultimate capacity of more than 100 tons might be required. PRASA also contends that the district court erred in allowing Howard to recover extra costs incurred due to its inability to use a "follower" [3] to drive the higher capacity piles, and in calculating the amount Howard is entitled to recover.

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[2] The term "ultimate capacity" refers to the greatest weight a pile will support without failing.

[3] A "follower" acts as an extension of the top of the pile and permits the pile to be driven below the surface of the ground. Howard intended to use a follower to drive the pipeline's supporting piles before beginning excavation. That technique is more efficient and less expensive than driving the piles after the trench has been excavated. But when PRASA increased the required pile capacity to 135 tons, Howard found it impossible to use the follower successfully, because the higher capacity piles were longer and more difficult to drive.

We have carefully reviewed PRASA's claims, but we decline to disturb the district court's award. There is a wealth of evidence in the record to support the court's finding that PRASA raised the required ultimate capacity of some of the piles from 100 tons to 135 tons after the contract was signed. PRASA's argument that the contract documents were ambiguous appears to have been raised for the first time on appeal and is therefore barred. *Johnston v. Holiday Inns, Inc.*, 595 F.2d 890, 894 (1st Cir. 1979). Even if it had been argued below, the theory would be of no avail because the district court's conclusion that the contract documents required piles with a 100-ton ultimate capacity is not clearly erroneous.

The evidence also supports the court's conclusion that the change to piles of 135 tons ultimate capacity significantly increased Howard's construction costs. Under these circumstances Howard was entitled to an equitable adjustment. The district court did not err in making that calculation. PRASA's delay in notifying Howard of the change in the required pile capacity and its failure to produce design calculations at trial justify the court's conclusion that PRASA breached its contractural obligations to Howard.

PRASA claims that Howard should not be able to recover any extra costs incurred as a result of its inability to use a follower because the contract provided that use of a follower should be avoided. PRASA argues that if Howard submitted its bid in reliance on its use of a follower, it did so at its own risk and thus should be barred from any recovery on this ground. We disagree.

The district court properly found that the use of a follower is a customary technique, which Howard could reasonably have expected to use with success on this project in driving piles with a 100-ton ultimate capacity. The contract did not absolutely bar use of the follower; it merely required that Howard obtain PRASA's permission before using the technique. Since Howard knew that permission could not be unreasonably withheld, it was entitled to bid in reliance on use of the technique. Indeed, PRASA did agree to use of the follower and substantial evidence at trial indicated that such use would have been successful if PRASA had not subsequently increased the ulti-

mate capacity requirement for some of the piles. On this record we think Howard was entitled to recover the extra costs it incurred due to its inability to use a follower.

Finally, we reject PRASA's claim that the district court improperly calculated the costs recoverable by Howard due to the pile capacity change. PRASA argues that Howard failed to establish the essential prerequisites to a claim for total costs. As the district court noted, in order for Howard to recover all the extra costs it incurred in driving the 135-ton ultimate capacity piles, it had to prove that:

> "(1) the nature of the particular losses make it impossible or highly impracticable to determine them with a reasonable degree of accuracy; (2) the plaintiff's bid or estimate was realistic; (3) its actual costs were reasonable; and (4) it was not responsible for the added expenses." *Moorhead Construction Company, Inc. v. City of Grand Forks,* 508 F.2d 1008, 1016 (8th Cir. 1975) (citations omitted).

We agree with the district court that Howard satisfied this standard.

PRASA points out that the district court based its finding that Howard's original bid was realistic on the fact that it was accepted. While we agree that the mere fact that a bid was accepted does not demonstrate that it was reasonable, we think the record mandates the conclusion that Howard's bid was not unrealistically low. Specifically, we find persuasive the testimony that Howard's bid was in line with the three other bids PRASA received. It was slightly higher those that submitted by two of the three unsuccessful bidders and slightly lower that submitted by the third.

Nor do we accept PRASA's contentions that Howard's actual costs were unreasonable and that Howard was responsible for the additional expenses. On the basis of all the evidence the district court concluded that Howard's extra costs were reasonable. As we have noted above, it is not our function to try this case *de novo.* Based upon our review of the parties' briefs and the record, we find no reason to doubt the district court's conclusion.

AWARD OF ATTORNEY'S FEES

Relying on Rule 44.4(d) of the Puerto Rico Rules of Civil Procedure, 32 L.P.R.A. Appendix II, which provides that a court may impose attorney's fees "[W]here a party has been obstinate", the district court awarded Howard attorney's fees on account of PRASA's "temerity and obstinancy".

We have previously warned of the dangers of the over-application of this rule and indicated that explicit findings should be made to justify such an award. *Carrillo v. Sameit Westbulk*, 514 F.2d 1214, 1219-21 (1st Cir. 1975). In awarding attorney's fees in this case, the district court noted that the defendant had delayed the case and multiplied discovery through its refusal to admit facts that were clearly established and by its tedious cross-examination that proceeded "endlessly without establishing any discernable train of thought nor proving any relevant facts". The court also emphasized that the defendant made "no discernable attempt... to establish the allegations contained in [its] counterclaim" and that it's witnesses "were in many cases unable or unprepared to give any relevant, credible testimony to either refute the plaintiff's claims or support its own...."

Although we do not lightly endorse an award of fees under Rule 44.4(d) in a complex, hard fought case such as the one before us, we believe that the court's findings, as supplemented by the record, are adequate to support its award of attorney's fees. We note particularly that the record supports the court's findings and that it contains at least three warnings from three different judges regarding the possibility that sanctions would be imposed if the parties did not cooperate in expediting this litigation.

ELEVENTH AMENDMENT

PRASA's final argument is that it is immune from suit in federal court under the Eleventh Amendment. This claim is raised for the first time on appeal, but inasmuch as it challenges

the jurisdiction of this court, we must consider it. *E.g.*, Edelman v. Jordan, 415 U.S. 651, 677-78 (1974). The Eleventh Amendment, which deprives the federal courts of power to hear claims for damages against any of the United States, has been held to apply to Puerto Rico. *Ezratty v. Commonwealth of Puerto Rico*, 648 F.2d 770, 776 n.7 (1st Cir. 1981).

We doubt that PRASA is sufficiently an arm of the state to qualify for the protection of the Eleventh Amendment. *See generally*, 13 C. Wright, A. Miller & E. Cooper, *Federal Practice and Procedure* § 3524 (1975) (discussing the factors considered in determining whether the state is the real party in interest in a particular case). An autonomous governmental corporation, such as PRASA, which was established to provide drinking water and sewage facilities for the people of Puerto Rico, *see* 22 L.P.R.A. § 141-68 ("Aqueduct & Sewer Act of Puerto Rico"), is not normally immune from suit in federal court. 13 C. Wright, A. Miller & E. Cooper, *Federal Practice and Procedure* § 3524, at 87 (1978). PRASA receives periodic appropriations from the state treasury, but it is financially independent of the Commonwealth. It has no power to pledge the credit or taxing power of the Commonwealth and the bonds it issues are its debts alone. PRASA's operations generate substantial revenue, and it does not seriously dispute Howard's assertion that the judgment rendered in this case will be paid out of PRASA's funds, rather than those of the Commonwealth. Taken together these facts might well lead us to conclude that PRASA is not an alter ego of the state and therefore does not qualify for immunity under the Eleventh Amendment. *See, e.g., Miller-Davis Company v. Illinois State Toll Highway Authority*, 567 F.2d 323, 327 (7th Cir. 1977).

We need not take that step today, however, because we conclude that PRASA has waived any protection it may or may not enjoy under the Eleventh Amendment by its conduct during this litigation. There is no question that a state may waive its Eleventh Amendment immunity, *e.g., Pennhurst State School & Hospital v. Halderman*, 52 U.S.L.W. 4155, 4157 (U.S. Jan. 23, 1984), and it has long been established that a general appearance may constitute such a waiver, *e.g., Clark v. Barnard*, 108 U.S. 436, 447 (1883). In the circumstances of this case, where

PRASA not only appeared but filed a counterclaim and a third-party complaint, we have little trouble concluding that PRASA voluntarily submitted to the jurisdiction of the federal court, thereby waiving any Eleventh Amendment immunity it might or might not have enjoyed. *See, e.g., Newfield House, Inc. v. Massachusetts Department of Public Welfare,* 651 F.2d 32, 36 n.3 (1st Cir. 1981).

The judgement of the district court is affirmed. Costs shall be borne by appellant.

APPENDIX B

IN THE

United States District Court

FOR THE DISTRICT OF PUERTO RICO

No. 80-0743(RA)

PAUL N. HOWARD COMPANY,

Plaintiff,

v.

PUERTO RICO AQUEDUCT AND SEWER AUTHORITY,

Defendant,

INSURANCE COMPANY OF NORTH AMERICA,

Third-Party Defendant.

MEMORANDUM OPINION, FINDINGS OF FACTS, CONCLUSIONS OF LAW AND JUDGMENT

Following a bench trial of nineteen days and after careful consideration of the testimony of witnesses and the contents of voluminous documents and having considered the demeanor and creditibility of each witness, the court enters the following Findings of Facts and Conclusions of Law.

FINDINGS OF FACTS

1. Plaintiff, Paul N. Howard Company (hereinafter referred to as "PNH"), is a corporation with its principle place of business in the state of North Carolina. The defendant, Puerto Rico Aqueduct and Sewer Authority (hereinafter referred to as "PRASA"), is a public corporation of the Commonwealth of Puerto Rico with its principle place of business in San Juan, Puerto Rico.

2. PRASA is the owner, designer and supervising engineer of the Mayagüez Intercepting Sanitary Trunk Sewer Line (Phase II) located at Mayagüez, Puerto Rico (hereinafter

referred to as "the project"), and also drafted and drew up the general contract and all the specifications for the project.

3. The Mayagüez Regional Sewerage System is a sanitary trunk sewer which is to serve the Mayagüez basin, including Cabo Rojo and Mayagüez, Puerto Rico, and has several phases. Phase I runs along the Mayagüez town property. Phase II goes into the sewage treatment plant, the plant discharges into a land outfall, which is one section, and then to the ocean outfall, which is another section of the project.[1]

4. PNH was awarded the contract for the construction of the project by PRASA based upon a bid submitted by PNH in the estimated amount of five million one hundred twenty-four thousand five hundred and nine dollars ($5,124,509.00), which was arrived at by applying unit prices submitted by PNH to the estimated quantities of work specified in the contract.

5. The contract documents for the project include the agreement, construction drawings, bid advertisement, descriptive memoir, instructions to bidders, specifications, executed proposal, soil report and several bonds.[2]

6. The contract, executed on December 28, 1977, in San Juan, called for construction of the project to commence on January 3, 1978 and to be completed in five hundred and forty days.

7. The complaint filed in this case by PNH prays for enforcement of the contractual rights to compensation, damages for breach of contract, and rescission of the contract for work remaining to be performed. All requests for relief are based upon allegations that PRASA failed to comply with its obligations to PNH under a general contract entered into by the parties for the construction of the project. The counterclaim filed by PRASA claims PNH negligently selected and used inadequate and unsuitable construction methods resulting in delays and damages to PRASA.

8. This action was brought under 28 U.S.C. § 1332. The jurisdiction of the court is not disputed by the parties.

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[1] Testimony of Leopoldo Ferrer, Transcript, pp. 1761-1763.

[2] Stipulation 6 of the pretrial order.

I. COST SUMMARIES

9. The amounts of damages claimed by PNH are based upon PNH's voluminous records of actual costs, which could not conveniently be examined in court during the trial. On this point, defendant's own expert in cost estimates stated that it would take at least six months of full time work to go through the original records and verify the summaries prepared by Jaime Suárez, who served as the project engineer for PNH during construction of the project. [3]

10. The summaries were admitted as exhibits under Rule 1006 of the Federal Rules of Evidence after it was established that the underlying documents supporting them had been made available to defendant for over a year prior to the trial date and that the supporting documents had been stipulated as exhibits and in fact presented before the court by plaintiff during the trial of this action.[4]

The supporting documents presented as exhibits were identified by witnesses for both parties and were clearly shown to be organized in a chronological fashion despite the voluminous and cumbersome nature of the records which is, after all, the reason for Rule 1006. In this regard, the court notes that an auditor presented by PRASA was unable to show in any of the summaries a figure or amount of costs which was contradicted by the underlying documents, other than a minor error in the amount of thirteen dollars and eighty-three cents ($13.83).[5]

11. In preparing the summaries, the labor costs, the actual equipment used and the duration of its use, the overhead expenses, and the materials cost were determined from PNH's regularly maintained records during the course of the project.

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[3] Testimony of Angel Rivero, Transcript, pp. 2410-2413.

[4] *United States v. Atchley,* 699 F.2d 1055 (11th Cir. 1983); *Donovan v. Janitorial Services, Inc.,* 672 F.2d 528 (5th Cir. 1982); *Ford Motor Co. v. Auto Supply Co. Inc.,* 661 F.2d 1171 (8th Cir. 1981); See also *Peter Kiewit Sons Co. v. Summit Construction Co.,* 422 F.2d 242, 256 (8th Cir. 1969).

[5] Testimony of Francisco Román, Transcript, pp. 2434-2438; testimony of Jaime Suárez, Transcript, p. 1568.

The court finds that the summaries are an organized, identifiable and reliable presentation of the evidence contained in the underlying records.

12. The cost of the utilization of equipment was based upon seventy-five percent (75%) of the rates which appear in the Blue Book for Construction Equipment published by the Equipment Guide Book Company (hereinafter referred to as the "Blue Book").

13. An expert witness presented by defendant claimed that instead of Blue Book rates PNH should have used the Construction Equipment Rental Rates Compilation published by the Associates of Equipment Distributors (hereinafter referred to as the "Green Book"). According to the expert witness, the Green Book is commonly used and accepted in Puerto Rico and the rates in the Green Book are lower than the rates in the Blue Book for similar equipment.[6] As a basis for that testimony, the expert gave as an example the fact that a pile driving hammer which according to the Green Book costs seven thousand five hundred dollars ($7,500.00) per month, according to the Blue Book would cost eleven thousand dollars ($11,000.00) per month. The witness clarified that he was not referring to the exact same piece of equipment but to pieces of equipment with a similar capacity.

14. The example given by defendant's expert would show the Green Book rates to be sixty-eight percent (68%) of Blue Book rates, and the court finds this to be the acceptable rate. Further, PNH's witness, Jaime Suárez, acknowledged that the Blue Book rates used to calculate the charges for the equipment use is not consistent with the rates used by PNH in their bid estimate.[7]

15. In addition to extracting information from the PNH records and condensing it in the summaries, Mr. Suárez made decisions based on his appreciation of the facts which occurred during construction of the project and in some cases made implicit assumptions as a result of the method employed to

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[6] Testimony of Angel Rivero, Transcript, pp. 2381-2384.

[7] Testimony of Jaime Suárez, Transcript, pp. 304, 1630, 1632.

calculate the damages. These are discussed individually in the opinion.

16. Witness Suárez allocated overhead costs and expenses on the basis of ⅓ to the pile-driving operation, ⅓ to the excavation and backfilling operations, and ⅓ to the pipe-installation operations.

17. Mr. Suárez testified that said allocation was made on the basis of his observation and participation in the supervision of the project and his appreciation of the time and effort which supervisory personnel dedicated to each activity.

18. The court finds the allocation to be reasonable and gives no credit to the testimony of defendant's expert witness who, while stating that he did not agree with Mr. Suárez' allocation, actually declined to suggest what would be the proper allocation if one had to be made.[8]

II. DESIGN OF THE PROJECT

19. PRASA is the owner of the project and as such it was responsible for the design of the same. Through its employees, it was the supervising engineer during the construction of the project and was responsible for the preparation of the general contract, as well as the plans and all the specifications.[9]

20. The testimony of all four PRASA design engineers called upon to testify at the trial by PNH indicated that PRASA keeps all of its design files until the corresponding project is constructed and at that point in time, design files are stored indefinitely in a dead file warehouse. In spite of this testimony, as of the date the trial was concluded, PRASA had not been able to produce the original design calculations performed during the design of the project. PRASA failed to present any justification for its failure to produce the calculations. The court finds that the adverse inference rule is applicable to this case. In the context of this case, the design calculations could be adverse to PRASA only if they were incorrect or inadequate.[10] A finding is based upon PRASA's unjustified failure to produce

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[8] Testimony of Angel Rivero, Transcript, pp. 2379-2381.

[9] Admitted Fact 5 of the pretrial order.

[10] The only other conclusion possible would be that PRASA prepared the plans and specifications without the benefit of any design calculations.

the design calculations which were prepared by its employees and were once contained in PRASA's design filed.[11] This finding is further supported by the various design changes made necessary during the construction of the project.

21. After hearing the testimony of all the PRASA engineers which participated in the design of the project, the court finds that the designers did not consider or calculate the (1) magnitude of any soil movements which might occur in a deep excavation performed in soft soils, (2) the effect of the deep excavation upon nearby structures and embankments, (3) and the magnitude of settlement which might occur if a gravel mat foundation was used instead of a pile foundation.

III. CHANGE IN THE REQUIRED PILE CAPACITY

22. The contract documents required a pile working capacity of 50 tons with a corresponding ultimate capacity of 100 tons.[12]

23. On July 21, 1978, PRASA, through Mr. Ernesto Martinez, Acting Chief of the Construction Department, instructed PNH that piles between Manholes 49 and 57 were to be driven to a one hundred thirty-five (135) ton ultimate capacity, instead of the one hundred (100) ton ultimate capacity originally required by the contract.[13]

24. On March 2, 1979, PRASA, through Mr. Rodrigo Montañez, Director of Engineering, instructed PNH that piles between Manholes 46 and 47 were to be driven to a 135 ton ultimate capacity, instead of the 100 ton ultimate capacity originally required by the contract.[14]

25. On August 7, 1979, PRASA, through Mr. Willie Rodríguez, Acting Chief of the Inspection Office for the Mayagüez Zone, informed PNH that piles between Manholes 48 and 49 were to be driven to a 135 ton ultimate capacity instead

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[11] See Fed. R. Evid. 301 and 302 and Rule 16(5) of the Rules of Evidence of Puerto Rico, 1979.

[12] See Page 11 as revised of the contract drawings, plaintiff's Exhibit 22, and the testimony of Gregorio Hernández, an expert witness presented by defendant, Transcript, p. 2102, lines 22-25.

[13] Plaintiff's Exhibit 7.

[14] Plaintiff's Exhibit 34.

of the 100 ton ultimate capacity originally required by the contract.[15]

26. PNH had planned to drive piles according to a pile-driving criteria developed in order to provide a 100 ton ultimate capacity pile and, as a result of the above-mentioned instructions, drove piles to a different pile-driving criteria developed in order to provide a 135 ton ultimate capacity pile.[16]

27. As a result of the change in the pile capacity requirements, longer piles were required, pile length became less predictable and, as a consequence, made pile-driving conditions more difficult.[17]

28. PRASA presented the testimony of expert witness Mr. Gregorio Hernández to demonstrate that there was no real difference between the 100 ton ultimate capacity piles and the 135 ton ultimate capacity piles as these were actually driven in the field.[18] In view of Mr. Hernández' testimony on cross-examination that such work as performed by Mr. Luis García, PNH's soil consultant on this project, was approved and accepted by PRASA and their soil consultants, and that he (Mr. Hernández) has never been in charge of performing pile load tests or developing pile-driving criteria and because, as Mr. Hernández stated, there is room for differences of opinion in this field as a result of the degree of professional judgment involved,[19] the court gives little weight to the testimony of Mr. Hernández concerning this aspect of the project.

29. The change in required pile capacity was made necessary by PRASA's design engineer's original decision not to include negative skin friction forces acting on the piles. Subsequently, following the recommendations of PRASA's soil consultants, this decision was reconsidered by PRASA's design

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[15] Plaintiff's Exhibit 15.

[16] Plaintiff's Exhibits 37, 8, 9.

[17] Plaintiff's Exhibit 9; testimony of Luis O. Garcia, expert witness present by PNH, Transcript, p. 387, line 17, to p. 392, line 25, and p. 398, line 17, to p. 401, line 12.

[18] Testimony of Gregorio Hernández, Transcript, pp. 2119-2120.

[19] *Ibid.*, pp. 2213-2218.

department and the required pile capacity was revised in order to take into account negative skin friction forces.[20]

30. At least as early as August 15, 1978, PNH notified PRASA that it was making the necessary calculations in order to present its claim for increased costs as a result of the increase in pile capacity requirements.[21]

31. As a result of the notification received from PNH, PRASA entered into negotiations with PNH in an attempt to arrive at a revised price for the revised pile capacity requirements.[22] Failure to reach an agreement led to the filing of the complaint in this case.

32. In preparing plaintiff's Exhibit 20A, which summarizes the cost of driving piles to the increased pile capacity requirement, Mr. Suárez calculated the total cost of driving the piles and subtracted the amount already paid under the contract unit prices, thus attributing all cost in excess of the unit price submitted in PNH's bid to PRASA's instruction increasing the pile capacity requirement. The acceptability of the total cost method hinges on proof that (i) the nature of the particular costs make it impossible or highly impracticable to determine them with a reasonable degree of accuracy, (ii) plaintiff's bid or estimate was realistic, (iii) plaintiff's actual costs were reasonable, (iv) plaintiff was not responsible for the added expenses.[23] The testimony of PRASA's expert on cost estimating agreed that it was highly impractical, if not impossible, because of the intertwining and overlapping of this particular operation with others, to extract from PNH's pile-driving costs those costs directly attributable to the increased pile capacity requirement.[24]

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[20] Testimony of Luis Roig, Transcript, pp. 120-122; plaintiff's Exhibits 6 and 7.

[21] Testimony of Leopoldo Ferrer, Transcript, pp. 1925-1926.

[22] *Ibid.*

[23] *Moorehead Construction Co., Inc. v. City of Grand Forks*, 508 F.2d 1008, 1016 (8th Cir. 1975).

[24] Testimony of Angel Rivero, Transcript, p. 2407.

33. The fact that PRASA accepted PNH's bid convinces this court that PNH's original estimate was realistic.[25]

34. The costs incurred by PNH are deemed reasonable by this court particularly based upon the fact that PNH's records prepared during the construction of the project identify different operations to which labor and equipment use are related, which permitted Mr. Suárez to extract only those costs corresponding to the pile-driving operation.

35. Furthermore, the expert witness presented by defendant testified that the amounts of equipment and labor utilized by PNH were not readily identifiable as being unreasonable or excessive.[26]

36. The basis of PNH's claim is that the additional costs were directly related to the change in pile capacity requirement. Although the cost of driving the pile shown by plaintiff's calculations varies for different sections of the project, the testimony before the court is that prices included in unit price bids are average expected prices and it is not unusual for variations to occur in different parts of the project. No other significant causes for the increased costs have been put before the court by defendant's witnesses. To the contrary, defendant's designers testified that the lower pile capacity was originally used specifically to make the project more economical, thus evidencing a significant relationship between required pile capacity and cost of the project.[27]

37. The court finds and takes note that the portion of the project between Manholes 46 and 37, approximately forty-nine percent (49%) of the total project, where no changes were made by PRASA and with respect to which no claims are presented, was constructed by PNH in a four-month period.[28] The actual cost of driving piles to original contract requirements between these manholes was considerably lower than the cost of driving piles in other sections of the project in adherence to

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[25] *Ibid.*, p. 229; testimony of Jaime Suárez, Transcript, p. 1738.

[26] Testimony of Angel Rivero, Transcript, pp. 2408-2413.

[27] Testimony of Luis Roig, Transcript, p. 121

[28] Plaintiff's Exhibit 31A.

the revised requirements.[29] These facts convince the court that the additional costs are directly related to the changes ordered by PRASA.

38. Mr. Jaime Suárez factored in thirty-three point five percent (33.5%) as the payroll taxes and other benefits related to labor costs. The reasonableness of this amount was supported by Angel Rivero, PRASA's expert on cost estimating.[30]

39. The court finds that the additional cost of driving the piles to the increased capacity requirement of 135 tons ultimate capacity was in the amount of five hundred twenty-one thousand five hundred and sixteen dollars ($521,516.00).[31]

IV. DIRECT CONSEQUENCES OF THE CHANGE IN PILE CAPACITY REQUIREMENTS UPON EXCAVATION, PIPE INSTALLING AND BACKFILLING OPERATIONS

40. During the preparation of its bid, PNH assumed at all times that it would be able to use a follower successfully in the pile-driving operation.[32]

41. A follower is an attachment which can be useful in driving the top of a pile to an elevation beneath the ground surface.[33] When piles are driven with a follower to a desired elevation below the ground surface and the follower is removed, the earth above the top of the pile is left free of any obstruction attributable to the driven piles which would hinder the subsequent excavation necessary for installation of the pipe.[34]

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[29] Testimony of Jaime Suárez, Transcript, p. 1739.

[30] Testimony of Angel Rivero, Transcript, p. 2390.

[31] Testimony of Jaime Suárez, Transcript, pp. 988-1018; plaintiff's Exhibit 20A. It should be noted that Mr. Suárez testified that the cost was in the amount of five hundred thirty-six thousand eight hundred two dollars and five cents ($536,802.05). However, this figure is based upon the inclusion of equipment and fuel, oil, gas and repair (FOGR) costs at seventy-five percent (75%) of the Blue Book rate, which the court finds at sixty-eight percent (68%). See Paragraph 14, *supra*.

[32] Testimony of Gary Arnold, Transcript, p. 218.

[33] Admitted Fact 9 of the pretrial order.

[34] Admitted Fact 10 of the pretrial order.

42. The purpose of using the follower is to allow the pile driving operation to be performed independently of the excavation, pipe installation, and backfilling operations, thus making both operations more efficient and, consequently, less expensive.[35]

43. Defendant's expert witnesses acknowledged that the use of the follower is customary in the construction industry. Plaintiff's estimator testified that in his experience the use of the follower can be expected to be successful in this type of project, and plaintiff's project engineer testified that the pile-driving logs compiled during the construction of the project showed that the use of the follower would have been successful if the pile capacity requirements had not been revised. As a result of said testimony, the court finds that PNH was justified in assuming that the use of the follower would have been successful and further finds that the unsuccessful result of the use of the follower was directly related to and caused by PRASA's change of the required pile capacity after construction had commenced.[36]

44. Although the contract required written approval from PRASA's engineers before PNH or any contractor could proceed to use a follower in the pile-driving operation, PNH understood the reasons for which approval was required and was willing to comply with the conditions likely to be imposed by PRASA.[37] After the project was awarded to PNH and the contract executed, PNH requested approval for the use of the follower and PRASA granted the request subject to several conditions which PNH had anticipated.

45. The increase in the required pile capacity forced PNH to change its construction method and increased the time required to construct the project because all operations had to be performed inside the excavation and thus were less efficient, which translates into being less economical.[38]

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[35] Testimony of Gary Arnold, Transcript, p. 220.

[36] Testimony of José Luis Capacete, Transcript, p. 2252; testimony of Gregorio Hernández, Transcript, p. 2128; Testimony of Gary Arnold, Transcript, p. 233; and testimony of Jaime Suárez, Transcript, pp. 1035-1041.

[37] Testimony of Gary Arnold, Transcript, pp. 226-230.

[38] Testimony of Jaime Suárez, Transcript, pp. 1026-1030.

46. In preparing plaintiff's Exhibit 20B, which summarizes the increased costs due to the impossibility of using the follower successfully, which was the result of the increase in the required pile capacity, Mr. Suárez used different methods to calculate such costs due to different circumstances present in different sections of the project.

47. Between Manholes 57 and 55, PNH attempted to use the follower to drive piles below ground surface to the intended elevation. As a result of the increase in pile capacity requirement, PNH was unsuccessful in its attempt to drive the piles to the intended elevation with the follower.

48. As a result of the unsuccessful use of the follower, although PNH was able to have its pile-driving operation independent from its other operations, the excavation and pipe-installation operations encountered considerable difficulties. These difficulties were related to the piles which could not be driven to the desired elevation and thus made excavation extremely time consuming.

49. Between Manholes 57 and 55, Mr. Suárez calculated the damages based on the estimated time for completion of this section of the project and actual time taken to complete this section of the project.

50. To determine the time for completion, Mr. Suárez used the production rate of 2.5 pipes per day estimated by Mr. Gary Arnold and added a contingency of 7.6 days or thirty-four percent (34%) of the estimated time for the work between Manholes 57 and 55.

51. The court finds the production rate of 2.5 pipes per day to be reasonable. Plaintiff's estimator testified that this rate would be the expected daily production and an expert in cost estimating, Angel Rivero, presented by defendant, estimated a rate of production of 2 pipes per day if installed on a gravel mat and stated it would be faster to install the pipe on piles already driven to the intended elevation than to perform the over-excavation required for the gravel mat.[39] The contingency of thirty-four percent (34%) used in plaintiff's calculations would

[39] Transcript, p. 2347.

further support the reasonableness of the projected time for completion of this section of the project.

52. Although several witnesses for defendant made vague allegations concerning other independent or unrelated reasons for the delay experienced in this section of the project, no specific determination of the duration of these delays was made; and there is no evidence before this court which would support a finding to the effect that such delays were in excess of the 7.6 working days allowed in plaintiff's calculations.

53. Because of the considerable difficulty encountered during excavation between Manholes 57 and 55, PNH decided to drive the piles after the excavation had been performed instead of using the follower in the sections of the project between Manholes 48 and 49 and between Manholes 55 and 54.

54. Calculating the inefficiency of the excavation operations due to the presence of the pile-driving operation within the open excavation, Mr. Suárez arrived at a twenty-three point five percent (23.5%) inefficiency between Manholes 55 and 54 and a twenty-one point five percent (21.5%) inefficiency between Manholes 48 and 49.

55. Mr. Gary Arnold, estimator for plaintiff, testified that driving piles inside of the open excavation would increase the time for completion of the project by twenty-five (25) to thirty percent (30%).[40]

56. Mr. Angel Rivero, defendant's expert cost estimator, testified that driving piles inside the open excavation would reduce the daily production rate by twenty-five (25) to thirty-three percent (33%).[41]

57. The court finds that the inefficiency factors calculated by Mr. Suárez are reasonable and supported by all the evidence before the court.

58. The court finds that, as a consequence of the change in construction method, PNH incurred increased costs in the

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[40] Testimony of Gary Arnold, Transcript, p. 226.

[41] Testimony of Angel Rivero, Transcript, pp. 2347-2348.

performance of the contract work in the amount of eight hundred twenty-two thousand four hundred and fifty-three dollars ($822,453.00).[42]

V. CHANGE IN THE NUMBER OF PILES REQUIRED BY EACH PIPE SECTION

59. The typical pipe support elevation included in revised sheet 11 of the plans specifies that each 16-foot section of pipe will be supported by four piles.[43]

60. In a letter dated January 18, 1979, PRASA instructed PNH that between Manholes 57 and 55 and in the area of Manhole 50, the plans for the project had been revised and six piles would be required to support each section of pipe instead of the four piles per section of pipe originally required by the plans and specifications for the project.[44]

61. PRASA's instructions referred to in the preceding paragraph were given to PNH after the pile-driving operation had already commenced at Manhole 57 and proceeded in the direction of Manhole 55. From the time excavation operations would have normally commenced until PRASA's official order to drive additional piles was received and PNH was able to return its pile-driving equipment to Manhole 57 and commence driving the additional piles requested by PRASA, PNH was unable to commence excavation operations and incurred additional costs directly attributable to moving the pile-driving operation back to Manhole 57 and to maintaining its excavation, pipe-laying, and backfilling operations idle.[45]

62. In preparing plaintiff's Exhibit 20C, which summarizes the cost incurred by PNH as a result of PRASA's instruction to drive two additional piles at the center of each section of pipe in the area between Manholes 57 and 55, Mr. Suárez extracted the

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[42] Plaintiff's Exhibit 20B; testimony of Jaime Suárez, Transcript, pp. 1023-1364. See also Paragraph 14 and Footnote 31, *supra*.

[43] Admitted Fact 7 of the pretrial order.

[44] Plaintiff's Exhibit 43.

[45] Testimony of Jaime Suárez, Transcript, pp. 1364-1370.

actual cost incurred during the idle period waiting for PRASA's final decision on the additional piles.

63. Mr. Suárez allowed PRASA a fifty-percent (50%) credit for the excavation equipment and labor which was idle, i.e., not engaged in excavation in recognition of the fact that PNH did utilize these resources to perform some work during this time.

64. Mr. Suárez' decision to allow a fifty-percent (50%) credit was based upon his own observation and experience during the construction of the project and the court finds it reasonable.

65. The amount of said additional costs is one hundred nine thousand one hundred and ninety dollars ($109,190.00).[46]

VI. COSTS OF MOVING ALL OPERATIONS FROM THE VICINITY OF MANHOLE 55 TO MANHOLE 48

66. At the time PNH had completed the work between Manholes 57 and 55, there was still no agreement between the parties on the increase in the unit price for driving piles corresponding to the increase in pile capacity requirements.[47]

67. Based on the economic implications of driving piles to an increased capacity without receiving a unit price increase for said work, upon reaching Manhole 55, PNH could not afford or be expected to continue driving piles to the increased capacity requirement.[48]

68. In order not to delay the project unnecessarily and incur costs for idle time, PNH was forced to move to the vicinity of Manhole 48 where no piles were required by the plans and specifications and, therefore, PNH could, at least, work under the contract prices until PRASA reached a final decision.[49]

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[46] Plaintiff's Exhibit 20C (Summary Printout), p. 70; Paragraph 14 and Footnote 31, *supra.*

[47] Testimony of Wilbur Robinson, Transcript, p. 629.

[48] *Ibid.*, pp. 629-630.

[49] *Ibid.*, p. 630.

69. In preparing plaintiff's Exhibit 20D, which summarizes the cost of moving all operations from Manhole 55 to Manhole 48, Mr. Suárez calculated the actual cost of the labor, equipment and overhead expenses related to the move.

70. Defendant's expert witness, Mr. Angel Rivero, testified that persons dedicated to the business of transporting equipment could have moved each piece of equipment for less than one hundred and fifty dollars ($150.00). Said estimate, as admitted by the witness, does not include the cost incurred by PNH as a result of having to stop, dismantle and again set up its operations and at the same time continue incurring labor costs, equipment ownership and operational costs, and overhead expenses.

71. The statements made in the preceding finding also apply to the move from Manhole 37 to Manhole 38 (Exhibit 20F), and the move from Manhole 49 to Manhole 55 (Exhibit 20I). See Parts VIII and X below.

72. The court finds that the costs incurred by PNH in the process of moving its operations from Manhole 55 to Manhole 48 are in the amount of fifty-four thousand two hundred and fifty-nine dollars ($54,259.00).[50]

VII. COSTS OF UNREASONABLE DELAY BY PRASA IN NOTIFYING DESIGN CHANGE

73. The section of the project between Manholes 48 and 46 as shown on the plans and specifications for the project did not require a pile foundation. Instead, the pipe was to be installed on a gravel mat foundation.

74. As PNH performed the work between Manholes 48 and 47, PRASA reevaluated its decision to install the pipeline on a gravel mat foundation instead of on a pile foundation. On February 20, 1979, PRASA verbally informed PNH that it should discontinue installation of the pipe in this section of the

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[50] Plaintiff's Exhibit 20D; testimony of Jaime Suárez, Transcript, pp. 1370-1374. See also Paragraph 14 and Footnote 31, *supra*.

project until it received further instructions concerning the pile foundation requirement.[51]

75. On February 22, 1979, a meeting of PRASA's engineers was held in which PRASA's soil consultant informed PRASA that the piles to be installed between Manholes 47 and 46 would require a 135 ton ultimate capacity. At said meeting, PRASA's engineers decided not to inform the contractor of the pile capacity requirement until a later date.[52]

76. In a letter dated February 23, 1979, PRASA, through Mr. Rodrigo Montañez, Director of Engineering, instructed PNH to discontinue work between Manholes 47 and 46 until additional information was received from PRASA.[53]

77. PNH made PRASA aware that the order to discontinue work would result in additional costs as would any move made to another section of the project in order to continue work while PRASA made a final decision.[54]

78. On March 2, 1979, PRASA informed PNH that the piles to be installed between Manholes 47 and 46 would require a 135 ton ultimate capacity.[55]

79. PRASA presented no evidence to justify its delay in informing PNH of the required pile capacity.

80. In preparing plaintiff's Exhibit 20E, which summarizes the cost of keeping operations idle when PRASA ordered a work stoppage in the vicinity of Manhole 47, Mr. Jaime Suárez again extracted cost information from supporting documents and allowed a fifty-percent (50%) credit to PRASA in recognition of the fact that PNH did attempt to make as much use of the labor and equipment as allowed by the circumstances during the stoppage.

81. The court finds that the order to discontinue work between Manholes 47 and 46 until further instructions were received caused PNH to incur additional costs during the

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[51] Plaintiff's Exhibit 11; testimony of Salvador Catala, Transcript, p. 1992.

[52] Plaintiff's Exhibit 12.

[53] Plaintiff's Exhibit 13.

[54] Plaintiff's Exhibit 14.

[55] Plaintiff's Exhibit 34.

construction of the project in the amount of seventy-six thousand seven hundred and eighty-eight dollars ($76,788.00).[56]

VIII. COSTS OF MOVING ALL OPERATIONS FROM THE VICINITY OF MANHOLE 37 TO MANHOLE 48

82. From Manhole 46, PNH worked continuously to Manhole 37. Upon reaching Manhole 37, which lies at the southwestern end of the pipeline, PNH moved its operations back to the vicinity of Manhole 48 in order to continue construction of the remaining sections of the project in all of which the pile capacity requirement had been increased.

83. The move described in the preceding paragraph was made necessary as a direct consequence of PRASA's failure to negotiate a change order for the work involved in driving piles to an increased pile capacity requirement, which forced PNH to abandon its intention of constructing the project continuously from Manhole 57 to Manhole 37.

84. In performing the move described in the preceding paragraph, the court finds that PNH incurred costs in the amount of twenty-three thousand nine hundred and seventy-four dollars ($23,974.00).[57]

IX. DIFFERING SITE CONDITION ENCOUNTERED BETWEEN MANHOLE 49 AND MANHOLE 53

85. From Manhole 49 to Manhole 53 the plans and specifications required the pipeline to be installed parallel to and approximately 12 meters to the west of PR Hwy. 2.

86. On October 3, 1979, while PNH was working from Manhole 49 towards Manhole 53, a maximum of 8 inches of settlement of the pavement of the west lane of PR Hwy. 2 was observed.[58]

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[56] Plaintiff's Exhibit 20E; testimony of Jaime Suárez, Transcript, pp. 1374-1377.

[57] Plaintiff's Exhibit 20F; testimony of Jaime Suárez, Transcript, pp. 1377-1380.

[58] Plaintiff's Exhibit 23A; testimony of Willie Rodríguez, Transcript, p. 2056.

87. At the time the observed settlement occurred, PNH had completely excavated approximately 40 linear feet of trench and partially excavated an additional 60 linear feet of trench.

88. In order to prevent further settlement of the highway, PNH backfilled the trench to approximately 10 feet from the bottom of the excavation.[59]

89. At this time, PNH notified PRASA that a differing site condition, as defined in clause 3 of Appendix C-2 of the contract, had been encountered.[60]

90. In order to further protect the road, PRASA ordered PNH to backfill the excavation to a level 6 feet above the previously existing ground elevation.[61]

91. PRASA has at no time acknowledged the existence of a differing site condition.[62]

92. From the occurrence of October 3, 1979 until February 18, 1980, both PRASA and PNH had contracted soil consultants to investigate the cause of the settlement of the highway embankment.[63]

93. PRASA took the position that the cause of the settlement was the inadequacy of the sheet-piling system installed by PNH.

94. Under the terms of the contract, PNH was responsible for designing the sheet-piling system, which according to the PRASA design was to be removed after installation of the pipe had been completed.[64]

95. PNH took the position that given the geometry of the highway embankment and the required excavation, together with the soil conditions present at the site, it was not possible to install the pipeline without having some settlement of the road

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[59] Testimony of Willie Rodríguez, Transcript, p. 2056.

[60] Plaintiff's Exhibit 16.

[61] Plaintiff's Exhibit 17.

[62] Plaintiff's Exhibit 30B, paragraph 52.

[63] Testimony of Sidney Johnson; defendant's Exhibit Z, AA, BB.

[64] Plaintiff's Exhibit 22, p. 11.

and, significantly, some movement of the pipeline after the sheet-piling system was removed.

96. In view of the impasse between the parties, PNH requested permission and proceeded to construct a section of the project between Manholes 49 and 50.

97. During the above-mentioned construction, PNH limited the length of excavation open at any given time to the minimum which would allow the installation of one pipe section. In addition, PNH's soil consultant, Mr. Sidney Johnson, was present and personally directed a significant portion of the construction operations.

98. During the construction operations, which commenced on February 18, 1980, the maximum settlements of the repaired highway which occurred before the sheet piling was removed were 3½ inches on the shoulder of the highway and 4⅛ inches on the center line of the highway.[65]

99. On March 3, 1980, before the sheet piling was removed, measurements were made of the displacement and settlement of the pipeline, but none could be detected.[66]

100. On March 4, 1980, the contractor began to remove the sheet-piling system.[67]

101. On March 5, 1980, the west lane of PR Hwy. 2 had settled 15 inches and the pipe had displaced towards the west 3⅞ inches.[68]

102. After the sheet piling was removed, lateral displacement of the nine sections of pipe installed by PNH between Manholes 49 and 50 continued to increase until reaching a maximum displacement believed at that time to be 14 inches.[69]

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[65] Testimony of Willie Rodríguez, Transcript, p. 2057.

[66] *Ibid.*

[67] *Ibid.*

[68] *Ibid.*, p. 2059.

[69] Testimony of Gregorio Hernández, Transcript, p. 2081.

103. More recent measurements show that the actual maximum displacement of the nine sections of pipe installed by PNH between Manholes 49 and 50 is only 7 inches.[70]

104. PRASA informed PNH that the work performed between Manholes 49 and 50 was unacceptable and refused to certify or pay for said work. At that time, further investigations were performed by both parties.[71]

105. PRASA's soil consultants, the firm of Vázquez Agrait & Vázquez Agrait, suggested to PRASA that, if possible, the alignment of the pipeline should be changed in order to remove the pipeline from the influence of the highway embankment. If moving the pipeline was not possible, PRASA's soil consultants recommended a different sheet-piling system to be used subject to extensive recommendations concerning the installation of a monitoring system which would enable movements to be measured and provide information on the basis of which any problems which might arise could be dealt with.[72]

106. Sidney M. Johnson, expert witness for plaintiff, testified that moving the alignment of the pipeline away from the influence of the road or changing the design of the pipeline, i.e., requiring that the sheeting and bracing be left in place, were the only two alternatives which would reasonably guarantee that the alignment of the pipeline could be maintained.[73]

107. PNH took the position that a differing site condition had been encountered and it was up to PRASA to make whatever design revisions were necessary in order to make installation of the pipeline possible.

108. PRASA analyzed the various possible solutions. Its analysis showed realignment of the pipeline away from the influence of the road to be the least expensive solution in terms of actual costs, but the cost involved in acknowledging the

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[70] *Ibid.*, p. 2082.

[71] Defendant's Exhibit T; testimony of Jaime Suárez, Transcript, pp. 1389-1391.

[72] Plaintiff's Exhibit 19; testimony of Luis Vázquez Castillo, Transcript, pp. 1218-1237; defendant's Exhibit BB, p. 7.

[73] Testimony of Sidney Johnson, Transcript, p. 1104.

presence of a differing site condition, the damages which could be claimed by the contractor, made that alternative more expensive.[74]

109. The plans for the construction of PR Hwy. 2 show that during the soil investigation for the construction of the highway, the soil conditions encountered in the vicinity of Manhole 49 were considerably less suitable than the general conditions prevailing in the area, to the extent that they were labeled as unstable in the plans for the construction of PR Hwy. 2. This information was not shown in the plans and specifications prepared by PRASA for the construction of the project.[75]

110. After the second attempt to complete the project in the vicinity of Manhole 49, PNH again moved its operations and finished construction of the project with the exception of the section of the project between Manholes 49 and 53.[76]

111. From July 15, 1980 until December 31, 1980, PNH remained at the project site, attempting to negotiate a change order from PRASA which would allow completion of the project. During December 1980, faced with the prospect of continuing to incur additional costs and PRASA's failure to reach a decision which would allow completion of the project, PNH demobilized its operations and withdrew from the project site.[77]

112. In September 1982, PRASA executed a second contract for the construction of the section of the project between Manholes 49 and 53 with the Longo Construction Company (hereinafter referred to as "Longo").[78]

113. Longo commenced construction of the project at Manhole 53 and installed eighty-six joints of pipe in the direction of Manhole 49 before stopping construction of the project.[79]

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[74] Plaintiff's Exhibit 35, pp. 5-6.

[75] Plaintiff's Exhibit 2.

[76] Plaintiff's Exhibit 31A.

[77] *Ibid.*

[78] Defendant's Exhibit YY.

[79] Stipulation filed by parties.

114. In the eighty-six joints of pipe installed from Manhole 53 to Manhole 49, deviations from the pipe location shown on the contract drawings are greater than 14 inches in eleven joints and greater than 7 inches in forty-one joints. The maximum deviation is $23\frac{7}{16}$ inches.[80]

115. The misalignment of the pipeline between Manholes 52 and 51 was of such a magnitude that it was decided to install an additional manhole identified as Manhole 52A in order to allow Longo to bring the pipe back to the desired alignment. The actual location of Manhole 52A is 25 inches away from the alignment required by the contract drawings.[81]

116. PRASA allowed Longo to proceed with its intended construction method because said method had been used successfully in other projects without observing any movement or deviation of the pipeline from the location shown on contract drawings.[82]

117. Originally, the plans prepared for construction of the section of the project between Manholes 49 and 53 specified that the nine sections of pipe installed by PNH from Manhole 49 towards Manhole 50 were to be removed. Afterwards, the plans were revised in order to allow the first eight pipes to remain in place and request a correction of the elevation of the ninth pipe.[83]

118. The specifications for the project require that the pipe sections be installed true to line and grade. Line referring to lateral alignment and grade referring to vertical alignment.[84]

119. PRASA's engineers interpret the contract as not specifying tolerances for installation of the pipe and that PRASA retains the power to analyze each case individually and

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[80] *Ibid.*

[81] Testimony of Leopoldo Ferrer, Transcript, p. 1890; stipulation filed by parties.

[82] Testimony of Leopoldo Ferrer, Transcript, pp. 1917-1918.

[83] Defendant's Exhibit YY.

[84] Plaintiff's Exhibit 21.

reach a decision concerning its acceptability or unacceptability under the contract.[85]

120. PRASA has not, at this writing, accepted or rejected the section of the project constructed by Longo and maintains that it reserves the right to accept or reject said work until the final inspection of the project is made.[86]

121. Based on the evidence before the court, the court finds that it is impossible to install the section of the pipeline between Manholes 49 and 53 without causing some degree of settlement to the embankment of PR Hwy. 2 and experiencing lateral displacement of the pipeline. This finding relies on the testimony of Mr. Sidney Johnson, which the court adopts based upon Mr. Johnson's demeanor, his academic qualifications, and his considerable experience with the type of problem encountered, as well as his personal knowledge of the facts.

122. The testimony of other expert witnesses on this issue is found to be unreliable by the court considering that the expertise of these witnesses is not closely related to the particular type of problem at hand and their failure to present to the court any detailed, practical construction scheme which would guarantee the type of result which PRASA was requiring from PNH.

123. The court finds that the situation encountered by PNH alongside PR Hwy. 2 is a "type (2)" differing site condition as defined by clause 3 of Appendix C-2 of the contract which refers to unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.[87]

124. The court finds that it is, in practical terms, impossible to install the section of the pipeline between Manholes 49 and 53, as designed by PRASA, without experiencing at least 7 inches of lateral displacement of the pipeline.

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[85] Testimony of Leopoldo Ferrer, Transcript, pp. 1911-1912.

[86] Stipulation filed by parties.

[87] Plaintiff's Exhibit 21C; testimony of Sidney Johnson, Transcript, pp. 1122-1123

125. The court finds it significant that not only did PNH's construction method experience displacement of the pipeline (7 inches), but Longo also experienced movement of the pipeline (25 inches) although it used a method which had been successful in other projects and was aware of the problems encountered by PNH. With the benefit of the results of both PNH and Longo's construction attempts, the expert witness in the field of cost estimating presented by PRASA testified that in his experience a sheet-piling system similar to the one used by PNH would be sufficient. Further, it is difficult to ignore the construction by Longo with its greater variance of displacement of the pipeline, which the court views as an implicit impossibility of obtaining compliance with the original standards as set forth in the contract.[88]

126. During the idle period from October 3, 1979 until February 18, 1980, while waiting for PRASA's decision on the differing site condition, PNH incurred costs in the amount of five hundred fifty-three thousand nine hundred and eighty-three dollars ($553,983.00).[89]

127. In its attempt commencing on February 18, 1980 to proceed with PRASA's defective design, PNH incurred costs in the amount of two hundred ninety-one thousand four hundred and forty dollars ($291,440.00) corresponding to the installation of nine sections of pipe from Manhole 49 towards Manhole 50;[90] the second attempt at which was designated as a "test section" to determine if the work installation as designed by PRASA would not result in a PR Hwy. 2 failure.[91]

128. In preparing plaintiff's Exhibit 20H, which summarizes the cost incurred by PNH in constructing the section of the project between Manholes 49 and 50, as specified in PRASA's

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[88] Plaintiff's Exhibits 23A thru 23I show the road collapse that accompanied the pipe movement.

[89] Plaintiff's Exhibit 20G; testimony of Jaime Suárez, Transcript, pp. 1380-1384. See also Paragraph 14 and Footnote 31, *supra*.

[90] Plaintiff's Exhibit 20H; testimony of Jaime Suárez, Transcript, p. 1385. See also Paragraph 14 and Footnote 31, *supra*.

[91] Testimony of Sidney Johnson, Transcript, pp. 1165-1169.

design, Mr. Suárez limited his work to the extraction of actual cost information contained in PHN's records.

129. During the idle period from July 15, 1980, excluding the time required to complete the work between Manholes 53 and 54, PNH incurred costs in the amount of three hundred twenty-seven thousand nine hundred and twelve dollars ($327,912.00).[92]

130. In preparing plaintiff's Exhibits 20G and 20J, which are summaries of costs incurred during idle periods related to PRASA's refusal to recognize the existence of a differing site condition, Mr. Suárez extracted the cost information from PNH's records.

131. The court finds that PNH incurred in costs for the total amount of one million one hundred seventy-three thousand three hundred and thirty-five dollars ($1,173,335.00) as a result of the differing site condition encountered.

X. COST OF MOVING FROM THE VICINITY OF MANHOLE 49 TO THE VICINITY OF MANHOLE 55

132. After PNH attempted to construct the section of the pipeline from Manhole 49 to Manhole 53, which effort proved to be a practical impossibility as designed by PRASA, PNH moved from Manhole 49 to Manhole 55.[93]

133. The above-mentioned move was made necessary by PRASA's failure to acknowledge the existence of a differing site condition and take corrective action within a reasonable period of time.

134. The court finds this move caused PNH to incur costs in the amount of seventy-one thousand one hundred and seventy dollars ($71,170.00).[94]

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[92] Plaintiff's Exhibit 20J. See also Paragraph 14 and Footnote 31, *supra*.

[93] Plaintiff's Exhibit 31A.

[94] Plaintiff's Exhibit 20I. See also Paragraph 14 and Footnote 31, *supra*.

XI. REDUCTION OF THE QUANTITIES OF WORK TO BE PERFORMED UNDER THE CONTRACT

135. The differing site condition encountered alongside PR Hwy. 2 together with PRASA's failure to take corrective action reduced the quantities of work actually performed by PNH under the contract.

136. The contract having been entered into on a unit price basis, the contractor distributes the fixed costs and cost of non-pay items into the unit prices submitted with his bid.[95]

137. Any significant reduction in the quantity of work to be performed affects the contractor's ability to recover his fixed costs and the cost of non-pay items.

138. The project received a grant from the Environmental Protection Agency and, as a result, the contract contains the provisions of 40 C.F.R. § 35.938.5(b)(1).

139. In preparing plaintiff's Exhibit 20K, which calculates the claim for compensation due to the reduction of work to be performed, Mr. Suárez based his calculations upon the amounts of work estimated to be performed, the amounts of work actually performed, and the percentage of fixed costs incurred by PNH in the construction of the project. This information was used in a formula for cost increase percentage developed by Mr. Suárez, which the court finds reasonable.

140. The expert witness presented by PRASA testified during cross-examination as to the reasonableness of the formula as actually applied and was unable to formulate any concrete, specific objection to the formula.[96]

141. The reduction of the quantities of work to be performed was caused not by the natural variations in estimated amounts of work, but directly by the differing site condition encountered. The calculation performed by Mr. Suárez shows the claimed additional costs to be in the amount

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[95] Testimony of Gary Arnold, Transcript, p. 240; testimony of Angel Rivero, Transcript, p. 2392.

[96] Testimony of Angel Rivero, Transcript, pp. 2391-2398.

of two hundred twenty-four thousand two hundred seventy dollars and sixty cents ($224,270.60).[97]

XII. CLAIM FOR COMPENSATION FOR MATERIALS PURCHASED FOR THE PROJECT

142. At the time the differing site condition was encountered, PNH had purchased concrete piles, pipe sections, and other materials for the completion of the job, which were left stored on the project right-of-way for PRASA's use.

143. The bid documents prepared by PRASA the second time that the section of the project between Manholes 49 and 53 was put out for bids specified that these materials were available and should be used by future contractors.[98]

144. Longo effectively took possession of these materials and has employed them during its construction of the project.[99]

145. PNH is claiming the cost of materials purchased which have not already been paid for and a twenty-percent (20%) procurement and handling expense on all materials purchased but not actually installed in the project by PNH.

146. In preparing plaintiff's Exhibit 20L, which calculates PNH's claim for purchasing materials which were stored at the project site for PRASA's future use, Mr. Suárez applied a procurement and handling expense of twenty percent (20%) of the cost of the materials. The court finds said percentage to be reasonable based on the testimony of Mr. Jaime Suárez and of PRASA's expert in cost estimates.[100]

147. The court finds that the amount of the damage is forty-six thousand nine hundred seventy one dollars and fourteen cents ($46,971.14).[101]

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[97] Plaintiff's Exhibit 20K; testimony of Jaime Suárez, Transcript, pp. 1390-1393.

[98] Defendant's Exhibit YY.

[99] Testimony of Jaime Suárez, Transcript, p. 1394.

[100] Testimony of Angel Rivero, Transcript, p. 2414.

[101] Plaintiff's Exhibit 20L; testimony of Jaime Suárez, Transcript, pp. 1393-1395.

XIII. EXTRAORDINARY MANAGEMENT TIME AND TRAVEL COSTS

148. Executives for PNH testified that PRASA's refusal to recognize the differing site condition encountered caused extraordinary management time to be dedicated to this project and extraordinary travel costs were incurred during this period.[102]

149. Mr. Jaime Suárez calculated the cost of the extraordinary management time and travel to be in the amount of one hundred thousand nine hundred forty-two dollars and thirty-two cents ($100,942.32).[103]

150. In preparing plaintiff's Exhibit 20M, which summarizes the extraordinary management time and travel costs incurred by PNH as a result of the differing site condition encountered, Mr. Suárez testified that he extracted the information from PNH's supporting documents.

151. The court finds that the time of the Deputy Director of Construction, Mr. Wilbur Robinson, should be excluded from the calculation of extraordinary management time, as Mr. Robinson testified that the project was his responsibility for which reason it is expected he would visit the project in the ordinary course of business. Also, the uncertainty involved in determining the portion of Mr. Robinson's time which should be classified as extraordinary management time justifies this exclusion.

152. The court finds that the travel cost incurred by PNH as a result of traveling in the company's own aircraft is greater than the cost of traveling on commercial airlines. No justification has been given for incurring in this additional travel cost. Therefore, the court finds that only twenty-five percent (25%) of the travel cost should be allowed as a claim for extraordinary travel cost.

153. In view of the above, the court finds PNH's claim for extraordinary management time and travel cost to be in the

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[102] Testimony of Wilbur Robinson, Transcript, p. 616.

[103] Plaintiff's Exhibit 20M; testimony of Jaime Suárez, Transcript, p. 1396.

amount of twenty-five thousand two hundred thirty-five dollars and fifty-eight cents ($25,235.58).

XIV. DAMAGES FOR PRASA'S FAILURE TO COMPLY WITH PAYMENT PROVISIONS OF CONTRACT

154. The contract between the parties establishes the contractor's right to receive payment not later than fifteen days after certification of the work performed was approved by PRASA.[104]

155. In preparing plaintiff's Exhibit 20N, which calculates damage to PNH caused by PRASA's failure to make payments within the time period specified in the contract, Mr. Suárez limited his participation to calculations based on the information contained in the payment documents prepared by PRASA.

156. The court finds that the calculations by PNH based on the amounts certified to be paid by PRASA, the time period between the date payment became overdue and the date payment was actually made, and damages based on a six-percent (6%) interest rate establish a claim amount of eighty-one thousand nine hundred eighty dollars and eighty cents ($81,980.80).[105]

XV. WORK PERFORMED AND NOT PAID FOR

157. In the tunnel section commencing at Manhole 53 and going in the direction of Manhole 54, PNH performed work in the amount of ninety-five thousand nine hundred twenty-three dollars and seventy-eight cents ($95,923.78).[106]

158. For the tunnel work referred to in the preceding paragraph, PRASA has paid to date seventy-five thousand fifty-nine dollars and seventy-three cents ($75,059.73).[107]

159. PHN is owed the difference between the work performed and the work already paid, which is in the amount

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[104] Plaintiff's Exhibit 21E.

[105] Plaintiff's Exhibit 20N, the calculation of damages on the basis of a six-percent (5%) interest rate is further discussed in the conclusions of law, *infra;* testimony of Jaime Suárez, Transcript, pp. 1396-1399.

[106] Plaintiff's Exhibit 42.

[107] Transcript, p. 2459.

of twenty thousand eight hundred sixty-four dollars and five cents ($20,864.05).

160. PRASA paid PNH the amount of one hundred seven thousand five hundred ninety-four dollars and fourteen cents ($107,594.14) for the work performed between Manholes 48 and 47.[108]

161. When vertical settlements of the pipeline in that section of the project were found to be close to 6 inches in some places, PRASA rejected the work and withheld the amount stated in the preceding paragraph from later payments to PNH.

162. PNH claims payment of one hundred seven thousand five hundred ninety-four dollars and fourteen cents ($107,594.14) alleging that the settlement was not a result of construction procedures but of design deficiencies. The court finds PNH is owed said amount by PRASA.

163. Originally the section of the project between Manholes 48 and 46 was to be installed on a gravel mat foundation instead of a pile foundation.[109]

164. The section of the project between Manholes 37 and 46 is roughly 1230.38 meters long and required piles along the entire section.[110]

165. The section of the project from Manhole 48 to Manhole 57 is approximately 1201.92 linear meters long and requires piles along the entire section.[111]

166. The section of the project between Manholes 48 and 46 is approximately 325.09 meters long.[112]

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[108] Testimony of Jaime Suárez, Transcript, pp. 1403-1404; testimony of Oscar Febres, Transcript, p. 2455. This retained amount should be added to the retained amounts of Paragraphs 179, 181, and 183 for the total retention of six hundred sixty-one thousand seven hundred fifty-two dollars and seventy-eight cents ($661,752.78).

[109] Plaintiff's Exhibit 22.

[110] *Ibid.*

[111] *Ibid.*

[112] *Ibid.*

167. While the work was being performed, it was determined that a change should be made from a gravel mat foundation to a pile foundation from Manhole 47 to Manhole 46.[113]

168. The plans called for excavation beneath the pipe elevation varying from 3 to 9 feet in order to remove soft unsuitable material and replace it with a gravel mat.[114]

169. During actual construction, it was PRASA's supervisor who determined how much excavation should be performed before installing the gravel mat,[115] which was, in fact, performed to a depth of 4 feet.[116]

170. PRASA's engineers determined that the settlements would not affect the pipeline's capacity.[117]

171. Similar settlements of 5¼ inches have been observed in the work performed by Longo without resulting in rejection of the work by PRASA.[118]

172. PRASA's engineers determined that the project inspectors did not have the necessary knowledge in order to determine when unsuitable material had been removed and the gravel mat could be placed.[119]

173. Expert witness, Mr. Pedro Jiménez, presented by PNH, testified that in his opinion settlement was due to consolidation of the soft soil below the pipeline.[120]

174. Defendant's position that settlement was due to unacceptable vibrations of the gravel mat foundation due to pile-driving and sheet-piling operations does not merit this court's credibility in view of the fact that in this particular

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[113] Plaintiff's Exhibit 34.

[114] Plaintiff's Exhibit 22.

[115] Testimony of Salvador Catala, Transcript, p. 1981.

[116] *Ibid.*, p. 1982.

[117] Plaintiff's Exhibit 18, p. 2, conclusions 1 and 2.

[118] Stipulation filed by parties.

[119] Plaintiff's Exhibit 18, p. 2, conclusion 5.

[120] Testimony of Pedro Jiménez, Transcript, pp. 1243-1244 and pp. 1246-1247.

section of the project sheet piling was not used and no piles were driven.

175. The court finds that the cause of the observed settlements was the consolidation of the soil beneath the pipe, the expected amount of which had not been investigated by the design engineers.

176. As a result of difficulties encountered while constructing the section of the project between Manholes 53 and 54, referred to in other places as "the tunnel," PNH and PRASA agreed to construct the remaining portion by the open trench method and to deduct the amount corresponding to the cost of constructing the section by the tunnel method and add the cost of constructing the section by the open trench method.[121]

177. PNH's computations show the cost of constructing this portion of the project by the open trench method to be fifty-one thousand eight hundred fifteen dollars and seventy-eight cents ($51,815.78).[122] The court finds PNH is owed said amount by PRASA.

178. The court finds that PRASA owes PNH for damages for failure to comply with the payment provisions of the contract in the total amount of one hundred eighty thousand two hundred seventy-three dollars and ninety-seven cents ($180,273.97).

XVI. AMOUNTS WITHHELD FROM PNH BY PRASA

179. From money certified for payment to PNH, PRASA has withheld the amount of four thousand two hundred forty-nine dollars and forty cents ($4,249.40) which it incurred as expenses for repairing PR Hwy. 2 after the settlement was observed on October 3, 1979.[123]

180. PNH claims payment of said amount on the basis that the settlement was the result of the differing site condition encountered.

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[121] Plaintiff's Exhibit 35, p. 2, paragraph 1.

[122] Plaintiff's Exhibit 42.

[123] Testimony of Jaime Suárez, Transcript, p. 1404; testimony of Oscar Febres, Transcript, p. 2455.

181. PRASA has withheld from PNH the amount of one hundred fifty-six thousand one hundred and fifty dollars ($156,150.00) which it has identified as liquidated damages related to PNH's failure to complete the contract within the stipulated time.[124]

182. PNH is claiming payment of this amount on the grounds that any delay and eventual noncompletion of the project were due specifically to PRASA's failure to comply with its obligation under the contract of providing adequate plans and specifications or, in the alternative, of taking prompt proper corrective action once problems were encountered.

183. PRASA has retained from PNH the amount of three hundred ninety-three thousand seven hundred fifty-nine dollars and twenty-four cents ($393,759.24) corresponding to the ten-percent (10%) retention established in the contract pending completion of the project.[125]

184. The court finds PNH is entitled to payment of that amount based on the fact that PNH has fulfilled its obligations under the contract.

185. The court finds that the total amount withheld from PNH by PRASA is five hundred fifty-four thousand one hundred fifty-eight dollars and sixty-four cents ($554,158.64).[126]

XVII. RESCISSION OF THE CONTRACT

186. Based on the impossibility or, in the alternative, practical impossibility of constructing the section of the project between Manholes 49 and 53, because of the differing site condition encountered, and PRASA's refusal to recognize the differing site condition and take corrective action, PNH is

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[124] *Ibid.*

[125] *Ibid.*

[126] The sum of one hundred seven thousand five hundred ninety-four dollars and fourteen cents ($107,594.14) was also retained by PRASA, which when added to the above amounts totals six hundred sixty-one thousand seven hundred fifty-two dollars and seventy-eight cents ($661,752.78). See Paragraphs 160 and 161 and Footnote 108, *supra.*

requesting rescission of its unit price contract with regard to construction of the project between Manholes 49 and 53.

Based upon the foregoing findings of fact, the court makes the following Conclusions of Law.

CONCLUSIONS OF LAW

The complaint filed in the instant case requests enforcement of contractual rights to compensation, damages for breach of the contract, and rescission of contract for work not performed as a result of the differing site condition encountered. From the nature of the request for relief, this court must first determine the applicable contract law.

The contract in question was executed in San Juan, Puerto Rico, between parties doing business on the island of Puerto Rico and for the express purpose of constructing a project in Puerto Rico. Consequently, the court finds that the instant controversy is governed by the contract law of Puerto Rico. Clause 7 of Appendix C-2 in the Instructions to Bidders of the contract states that all claims, counterclaims and disputes between the owner and the contractor will be decided in a court of competent jurisdiction within the state in which the owner is located.

The general contract law of Puerto Rico is codified in Articles 1206 and 1266, inclusive, of the Civil Code of Puerto Rico, 31 L.P.R.A. §§ 3371-3525. Article 1240 of the Civil Code of Puerto Rico, 31 L.P.R.A. § 3478 establishes that the interpretation of obscure stipulations of a contract must not favor the party occasioning the obscurity particularly in the case of adhesion contracts, i.e., those contracts in which only one of the parties prescribes the conditions of the contract to be accepted by the other, a situation typical of a public works contract in which the general conditions are embodied in a model or form prepared by the owner of a project. *Zequeira v. U.R.H.C.*, 83 P.R.R. 847, 849 (1961).

Further, the court finds that the intention of the parties in including contractual clauses specified by federal regulations[127] which have been the object of extensive interpretation by federal courts is best served by adopting and applying the interpretation known previously to the parties which has been developed through prior litigation in federal courts concerning the language of said clauses.

The court concludes that PRASA breached its obligation to provide an adequate design for the project and prepare adequate, reliable plans and specifications for the construction of the project.[128] See Part II above.

Plaintiff's claim for costs incurred as a result of the change in the required pile capacity, determined to be in the amount of five hundred twenty-one thousand five hundred and sixteen dollars ($521,516.00) in Part III above, the consequences of the change in pile capacity requirements upon excavation, pipe-installation and backfilling operations, determined to be in the amount of eight hundred twenty-two thousand four hundred and fifty-three dollars ($822,453.00) in Part IV above, the change in the number of piles required to support each pipe section between Manholes 57 and 55, determined to be in the amount of one hundred nine thousand one hundred and ninety dollars ($109,190.00) in Part V above, and the change between Manholes 47 and 46 from a gravel mat foundation to a pile foundation, determined to be in the amount of seventy-six thousand seven hundred and eighty-eight dollars ($76,788.00) in Part VII above, fall under a breach of contract cause of action based upon defendant's failure to provide an adequate design and prepare adequate, reliable plans and specifications for the construction of the project.

The presence of a changes clause in the contract is evidence that the possibility of changes and delays necessarily incident thereto was contemplated by the parties. For any necessary delay resulting from the exercise of a reserved right,

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[127] See 40 C.F.R. §35.938-8, Required Construction Contract Provisions included in Appendix C-2 in the Instructions to Bidders.

[128] *United States v. Spearin*, 248 U.S. 132, 136 (1918); *Laburnum Construction Corporation v. United States*, 325 F.2d 451, 457 (Ct. Cl. 1963).

there is no liability. There is, however, an implied obligation not to cause unreasonable delay in making changes.[129]

As an exception to the above-stated general rule, where the change is made necessary by defective plans and specifications, the party ordering the change must pay the entire resulting damage without any reduction for time to make changes as will be the case if the redesign were made necessary by a changed condition or the like.[130]

The court concludes that the four changes which PRASA ordered were the result of the defective plans and specifications prepared by PRASA for the construction of the project. The considerations which moved PRASA to order the changes were known or should have been known by PRASA's design engineers at the time the original design calculations were made for the project. PRASA's failure to produce the original design calculations at least justifies the conclusion that there would have been no need for PRASA to make the change had the original calculation been devoid of any defects or inadequacies.

The changes having been made necessary by defective plans and specifications for which PRASA is responsible, the court concludes that said changes constitute a breach of PRASA's obligation under the contract, thus, entitling PNH to claim all costs directly or indirectly related to performance of the work as a result of the change and all costs related to delays resulting from PRASA's decision to make the changes.

PNH's claim for the cost incurred as a result of the differing site conditions encountered between Manholes 49 and 53, determined to be in the amount of one million one hundred seventy-three thousand three hundred and thirty-five dollars ($1,173,335.00) in Part IX above, is also a claim for breach of contract, based upon PRASA's refusal to recognize the differing site condition encountered and comply with its obligations under the differing site condition clause contained in Appendix

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[129] *J.A. Ross & Co. v. United States,* 115 F.Supp. 187, 191 (Ct. Cl. 1953).

[130] *Luria Brothers & Company v. United States,* 369 F.2d 701, 709 (Ct. Cl. 1966); *Chaney and James Construction Company v. United States,* 421 F.2d 728, 731 (Ct. Cl. 1970); *Carl M. Halvorson, Inc. v. United States,* 461 F.2d 1337, 1344 (Ct. Cl. 1972).

C-2 of the Instructions to Bidders, which is a part of the contract. The court having entered a finding of fact declaring the existence of a differing site condition as defined in the clause and declaring PRASA's refusal to acknowledge the differing site condition, under the contract, PNH is entitled to recover for damages caused by PRASA's breach of the contract.

The court concludes that PNH did comply with its obligation to mitigate its damages by first reducing the personnel kept at the project during idle periods and finally demobilizing its operations at the project site.

In view of Article 1483 of the Civil Code of Puerto Rico, 31 L.P.R.A. § 4124 and the interpretation given to this statute by the Supreme Court of Puerto Rico in *Geigel v. Mariani*, 85 P.R.R. 43 (1962), the court concludes that PNH acted correctly when it refused to proceed with the construction of the project between Manholes 49 and 53 as designed by PRASA once it had knowledge of the defects which would occur in the pipeline and the fact that the measure of said defects exceeded the measure of defects normally expected in a construction project and made the work performed unacceptable to PRASA as evidenced by PRASA's acts.

The cited statute is based upon public policy considerations and, therefore, makes conflicting contractual provisions non-enforceable. As a result, the court concludes that the contractor's obligation to perform the work was not reinstated or revived by PRASA's subsequent decision to modify the measure of defects which it considers acceptable, thus attempting to circumvent the public policy embodied in the statute, the purpose of which is to prevent the construction of defective projects.

The court further concludes that PRASA's interpretation of the contract, under which it purports to reserve the right to determine whether or not the work performed is acceptable without establishing the criteria to be used for said determination violates Article 1490 of the Civil Code, 31 L.P.R.A. § 4131, which establishes that compliance with contractual obligations cannot be left to the determination of one of the parties to the

contract. The statute further specifies that when work is to be done to the satisfaction of the owner, in this case PRASA, approval is understood as reserved for the proper expert judgment. The court concludes as a matter of law that the defects which developed in the pipeline exceeded the measure of defects normally contemplated in a construction project of this nature.

The impossibility of constructing the pipeline as designed by PRASA in compliance with the contract requirement that the pipeline be installed "true to line and grade" entitles PNH to rescission of the contract with respect to the section of the project between Manholes 53 and 49.[131]

The right to request rescission of the contract is further supported by PRASA's failure to recognize and acknowledge the existence of a differing site condition and make the necessary decisions which would allow continuation of the construction of the project.[132]

PNH's claims for the cost of moving from Manhole 55 to Manhole 48, determined to be in the amount of fifty-four thousand two hundred and fifty-nine dollars ($54,259.00) in Part VI above, from Manhole 37 to Manhole 48 determined to be in the amount of twenty-three thousand nine hundred and seventy-four dollars ($23,974.00) in Part VIII above, and from Manhole 49 to Manhole 55 determined to be in the amount of seventy-one thousand one hundred and seventy dollars ($71,170.00) in Part X above, are directly related to PRASA's breach of the contract by insisting that PNH continue with the construction of the project while refusing to agree upon a revised price for the driving of piles which capacity had been increased and refusing to acknowledge the existence of a differing site condition. The moves imposed burdens upon PNH not specified in the plans and specifications for the project, the cost of which PNH is legally entitled to recover from PRASA.

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[131] Article 1138 of the Civil Code of Puerto Rico, 31 L.P.R.A. §3193.

[132] Article 1077 of the Civil Code of Puerto Rico, 31 L.P.R.A. §3052.

The contract between the parties establishes fifteen percent (15%) as a guideline for variations in the amounts of work to be performed under the contract. Variations exceeding that percentage are to be examined in order to determine whether they affect the costs of performing the work.

In the instant case, several items of work were reduced by amounts greater than fifteen percent (15%) due to rescission of the contract with respect to the sections of the project between Manholes 53 and 49.

The court concludes that PNH is entitled to compensation in the form of increased unit prices, determined to be in the amount of two hundred twenty-four thousand two hundred seventy dollars and sixty cents ($224,270.60) in Part XI above, under the contract in order to compensate for any increased costs which are a result of the reduction in amounts of work to be performed.

The court concludes that PNH is entitled to recover from PRASA the amount of forty-six thousand nine hundred seventy-one dollars and fourteen cents ($46,971.14) in Part XII above, corresponding to the cost of purchasing and handling materials for the construction of the project which were not used by PNH as a result of the differing site condition, but were ultimately put at the disposition of Longo by PRASA.

The court concludes that PNH is entitled to recover from PRASA the extraordinary management and travel cost incurred as a result of PRASA's refusal to recognize the differing site condition encountered between Manholes 49 and 53 as required by the contract. The court has determined said cost to be in the amount of twenty-five thousand two hundred thirty-five dollars and fifty-eight cents ($25,235.58) in Part XIII above.

The contract specifies that payment was to be made not later than fifteen days after certification of the work performed was approved by PRASA. The court concludes that payment not having been made in said period of time, PNH is entitled to recover damages caused by PRASA's breach of the cited contractual provisions. Article 1061 of the Civil Code of Puerto

Rico, 31 L.P.R.A. § 3025 establishes legal interest as the proper measure of damage in the case of late payments under the contract when no other interest rate has been stipulated in the contract. The court concludes that PNH is entitled to recover compensation for damages in the amount of eighty-one thousand nine hundred eighty dollars and eighty cents ($81,980.80), which was determined on the basis of the six-percent (6%) legal interest rate in Puerto Rico. See Part XIV above.

The court concludes that under the contract PNH is entitled to compensation for work performed according to PRASA's plans and specifications, determined to be in the amount of one hundred eighty thousand two hundred seventy-three dollars and ninety-seven cents ($180,273.97) in Part XV above between Manholes 53 and 54 and between Manholes 48 and 47.

The contract having been rescinded so as to end all obligations of PNH related to further construction of the project, the court finds that the contract as it remains has been completed and complied with by PNH and concludes that PNH is entitled to receive from PRASA all amounts withheld or retained by PRASA from the work certified for payment, determined to be in the amount of five hundred fifty-four thousand one hundred fifty-eight dollars and sixty-four cents ($554,158.64) in Part XVI above.

Therefore, in view of all the above, the court finds that PNH is entitled to a judgment against PRASA in the total amount of three million nine hundred sixty-six thousand one hundred five dollars and seventy-three cents ($3,966,105.73).

COSTS, INTERESTS AND ATTORNEYS' FEES

The effort required by plaintiff and its attorneys in order to reach the conclusion of this case is evidenced from the pleadings and documents contained in the court's docket and the transcript of proceedings of the trial which lasted nineteen days. There has been, in the opinion of this court, a complete

disregard of Rule 1 of the Federal Rules of Civil Procedure and Rule 102 of the Federal Rules of Evidence by defendant, which has prevented and otherwise frustrated the speedy and inexpensive determination of this action and brought about unjustifiable expense and delay.

Defendant denied numerous allegations contained in the complaint and then stood by silently, without offering any evidence to the contrary as plaintiff laborously proved each point, one by one, during the trial. Defendant denied numerous requests for admissions which were the object of a motion filed by plaintiff setting forth the temerity and obstinacy of defendant in light of the documents prepared by defendant and produced during the discovery which clearly established the facts denied by defendant. Again, during the trial, defendant stood by silently as plaintiff established the facts. Defendant's temerity and obstinacy is documented in the transcripts of pretrial conferences held before the Honorable Robert A. Grant, United States District Judge, sitting by designation, in which defendant insisted on denying the truth of the matters as requested by plaintiff, refused to give any reasons for the denials, and acknowledged the court's power to impose reasonable attorneys' fees under Fed. R. Civ. P. 37(c) if plaintiff were able to prove the truth of these matters. During the trial, defendant cross-examined plaintiff's witnesses tediously and endlessly without establishing any discernable train of thought nor proving any relevant facts which would support the allegations contained in the answer to the complaint. Despite the fact that defendant filed a counterclaim against plaintiff, no discernable attempt was made to establish the allegations contained in the counterclaim. The witnesses presented by defendant were in many cases unable or unprepared to give any relevant, credible testimony to either refute the plaintiff's claims or support its own counterclaim.

The court makes the observation that defendant's attorneys came dangerously close to the imposition of sanctions under 28 U.S.C. § 1927. In any event, in view of the temerity and obstinacy displayed by defendant as set forth in the preceding paragraph, the court awards plaintiff costs, interest from the date of the filing of the complaint, and attorneys' fees.

IT IS SO ORDERED.

San Juan, Puerto Rico, this 23rd day of August, 1983.

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RAYMOND L. ACOSTA
United States District Judge

APPENDIX C

IN THE

United States Court of Appeals

FOR THE FIRST CIRCUIT

No. 83-1824

PAUL N. HOWARD COMPANY,
Plaintiff, Appellee,

v.

PUERTO RICO AQUEDUCT AND SEWER AUTHORITY,
Defendant, Appellant,

v.

INSURANCE COMPANY OF NORTH AMERICA,
Third-Party Defendant, Appellee.

JUDGMENT

Entered: August 29, 1984

This cause came on to be heard on appeal from the United States District Court for the District of Puerto Rico, and was argued by Counsel.

Upon consideration whereof, It is now here ordered, adjudged and decreed as follows: The judgment of the District Court is affirmed.

By the Court:

Francis P. Scigliano
Clerk.

[cc: Messrs: Lenzini and Lausell]

APPENDIX D

IN THE

United States Court of Appeals

FOR THE FIRST CIRCUIT

No. 83-1824

PAUL N. HOWARD COMPANY,
Plaintiff, Appellee,

v.

PUERTO RICO AQUEDUCT AND SEWER AUTHORITY,
Defendant, Appellant,

v.

INSURANCE COMPANY OF NORTH AMERICA,
Third-Party Defendant, Appellee.

Before

COFFIN, BOWNES AND BREYER,
Circuit Judges.

MEMORANDUM AND ORDER

Entered: October 11, 1984

Having carefully considered the petition of Puerto Rico Aqueduct and Sewer Authority (PRASA) for rehearing, we determine that it should be denied. We perceive no ground for reconsidering our conclusions with respect to the existence of a differing site condition, and we remain equally convinced that PRASA enjoys no Eleventh Amendment immunity.

With respect to the latter issue, we note that the Supreme Court of Puerto Rico has in two persuasive opinions reasoned that PRASA, by statute is a public corporation, "a personality separate and apart from that of the government", which statute "depriv[es] it of the protection of sovereign immunity traditionally enjoyed by the State." *Canchani v. C.R.U.V., 105 D.P.R. 352, 356-57 & n.2 (1976); A.A.A. v. Union Empleados A.A.A.*, 105 D.P.R. 437, 455-57 (1976). While Eleventh Amendment immunity is a federal question, we deem highly significant for the purpose of determining at least whether a state has waived any immunity to suit in federal court the pronouncements of that state's highest court clearly indicating the propriety of treating PRASA as a separate entity generally. *Long v. Richardson,* 525 F.2d 74, 79 (6th Cir. 1975).

Accordingly, PRASA's petition for rehearing is denied.

By the Court:
Francis P. Scigliano
Clerk.

[cc: Messrs: Lenzini and Lausell]